CYBER COMBAT KIT DOCUMENTATION

How to use it, how to set it up, what every part does and how to adapt it to your game. New here? Start with Your first fight in 5 minutes.

PART 1. GETTING STARTED

What's in the kit

Cyber Combat Kit is a top-down action combat system for Unity 6 with URP. Drag in a humanoid model, click a few buttons and you have a hero fighting waves of enemies.

ITEM	AMOUNT
Level up boosts	42
Equipment chips	36, in 9 slots, levels 1 to 4
Ready-made enemies	21 (11 World 1, 10 World 2), 5 behaviours, plus a Training Dummy
Example companions	3: Knight, Ranged, Healer
Status effects	4: Burn, Freeze, Weakness, Frailty
Sword	3 hit combo, plus 4 charged specials
Editor tools	6: Setup Wizard, Check Setup, Hero Animations, Boost and Chip Creator, Effect Maker, Sound Library
Wired sounds, no clips	67 entries in the Sound Library
Hero levels	100
Code	117 C# files, 19,982 lines, source included
Content	71 prefabs, 140 materials, 136 PNG, 38 animation clips, 26 FBX, 1 demo scene
Folder size	184 MB on disk, 567 files

What's not in the kit

No audio files, save system, currency, inventory, levels, ready-made bosses or player jump. `Damageable.isBoss` exists, but no prefab uses it and there is no boss bar.

Arenas, expeditions, crafting, training mode and hardcore mode belong to the game Cyberhero Legends. They are not in the kit.

Requirements

- Unity 6. The kit was made and tested on 6000.6.5.
- Universal Render Pipeline (URP) is what the kit is made for. You install it and set the URP Asset. For Built-in or HDRP, see Installing.
- Input System, Unity UI with TextMeshPro and AI Navigation. The kit offers to install these.

Tested in Play Mode in the Unity Editor (731 automated checks, 149 wizard checks) and on a Windows build. This combat system runs on phones in Cyberhero Legends, our Android game. Touch controls are included: test them on your target devices too.

Folders

FOLDER	CONTENTS
`Prefabs`	`Hero`, `Companions`, `Enemies` (`World 1`, `World 2`, Training Dummy), `Projectiles`, `Pickups`, `Managers` and `VFX`.
`Characters`	Models, materials, textures and animators of the hero, companions and enemies.
`VFX`	Effect materials, textures, meshes and sword slash animations. Unity shaders only.
`Audio`	The Sound Library (no clips) and the audio mixer.
`UI`	Skill and companion icons, the TextMesh Pro font and UI textures.
`Data`	`Skill Database`, `Hero Stats Table` and the Chip Library.
`Demo`	`Combat Demo` scene, its NavMesh and floor materials.
`Scripts`	`Runtime` (combat), `Editor` (tools) and `DynamoBone` (bone physics of the hero ponytail).
`Documentation`	`DynamoBone.md`.

Installing

You will get: the kit compiled and the Setup Wizard open.

Before you start: a Unity 6 project, ideally with URP. The kit does not install URP.

Using Built-in or HDRP: the kit materials use URP shaders, so they show pink until you swap them for shaders of your pipeline. The **Render Pipeline** item of the **Project** tab stays red, and you can ignore it once your materials are converted.

1. Import the package. The kit lives in `Assets/Zeuk Games/CyberCombatKit`.
2. A message lists the Unity packages the project is missing. Click **Install**. The kit stays off until they are installed.
3. If you clicked **Later**, use **Tools > Zeuk Games > Cyber Combat Kit > Install Required Packages** when you are ready.
4. Unity asks to enable the Input System and restart. Accept it.
5. The Setup Wizard opens. Fix the items of the **Project** tab with one click.

It worked if: the **Project** tab has no red items and says "The project is ready."

If it didn't: see Troubleshooting.

Updating the kit

Everything you create goes to `Assets/My Combat Kit`, outside the kit folder. New prefabs are full copies, so a kit update does not touch them. For boosts and chips, click **Make my own copy** in the Boost and Chip Creator first: otherwise they live in kit assets that an update can replace. **Check Setup** warns about this.

Moving the kit

You can move the kit folder anywhere in the project. Editor tools find it by themselves.

Try the demo

You will get: every system running in five minutes, with nothing to set up.

Open `Demo/Combat Demo.unity`, or click **Demo Scene** at the bottom of the Setup Wizard, then press Play.

ACTION	KEYBOARD / MOUSE	GAMEPAD	TOUCH
Move	WASD, arrows	Left stick	Virtual stick
Sword	J, left click	X (West)	SWORD
Gun	K, right click (hold with the Machine Gun chip)	Y, RT	GUN
Dash	Space, Left Shift	A, RB	DASH

ACTION	KEYBOARD / MOUSE	GAMEPAD	TOUCH
Chips panel	Tab		CHIPS
Companion menu	C		COMPANION
Enemy test panel (demo)	E		ENEMIES
Pause and help	Esc	Start	II
Pick a boost	Number keys, click	UI navigation	Tap
Debug (Editor and development builds)	F1 level up, F2 boost pick, F3 reset run, F4 touch controls		

A five minute tour

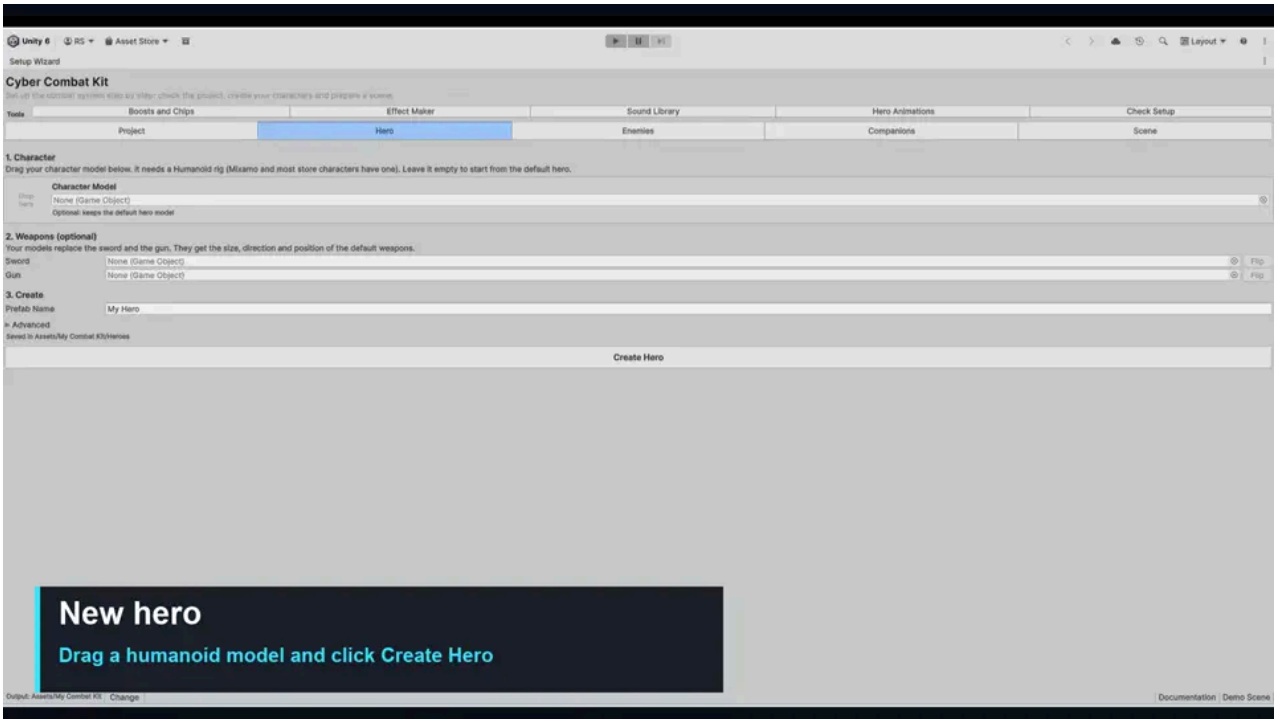
1. Move and press Dash. You pass through enemies and can't be hit during the dash.
2. Press Sword three times for the combo. The third hit pushes enemies 4 meters.
3. Press Gun. It aims at the closest enemy by itself.
4. Kill enemies and collect the EXP orbs. When the skill bar fills, the game pauses and shows 3 boost cards.
5. Press Tab. Equip **Charging Core** in the Sword Core slot, set level 4, close the panel, fire 12 shots and attack.
6. Press C. Pick a companion and raise its stats with the + buttons.
7. Press E. Spawn any of the 21 enemies next to you. Click its color square to use it in the waves.
8. Press F1 to level up, F2 for a boost pick, F3 to reset the run and F4 to cycle the touch controls.

F1 to F4 and their pause menu buttons work only in the Editor and in development builds. They never work in release builds. To turn them off in the Editor too, untick `Debug Tools` on the `CombatManager` component. The enemy panel (E) exists only in the demo scene.

Your first fight in 5 minutes

You will get: a new scene where your hero fights waves of enemies.

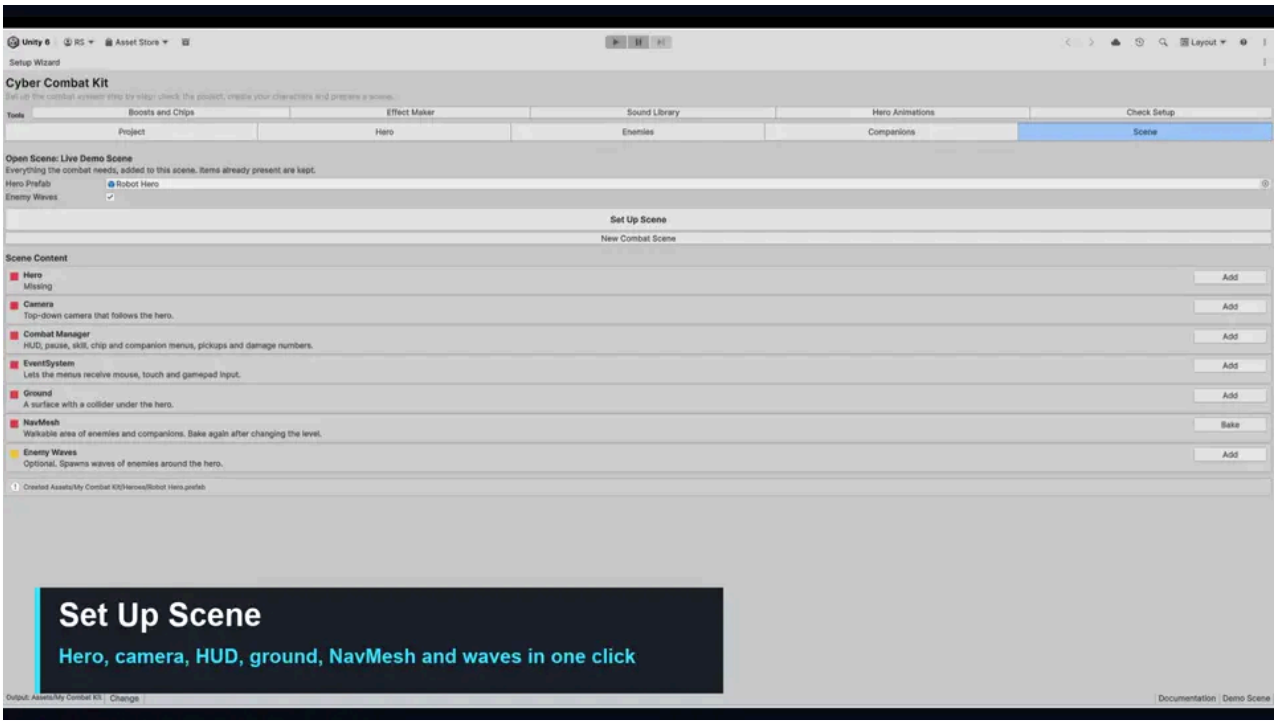
Before you start: finish Installing. Your own model is optional: it must be rigged, with a Humanoid rig. Mixamo and most store characters have one.



The Hero tab of the Setup Wizard with a model ready to become a hero

1. Open **Tools > Zeuk Games > Cyber Combat Kit > Setup Wizard**.

2. In the **Project** tab, fix the red items. The yellow items are recommended: name the layers and use Linear color space.
3. Using your own model: open the **Hero** tab, drag it into **Character Model** and click **Create Hero**. Using the default hero: skip this step.
4. Open the **Scene** tab. Your new hero is already in **Hero Prefab**.
5. Create or open a scene, click **Set Up Scene**, or click **New Combat Scene** to start from an empty one.
6. Press Play.



The Scene tab of the Setup Wizard listing what the scene needs

It worked if: you can move, attack and shoot, and enemies appear around you in waves.

If it didn't: open **Check Setup**. It finds most problems and fixes them with one click. No sound is normal: the kit ships without audio files, see Sound Library.

Concepts

- **Hero:** the player character. There is one per scene.
- **Boost:** an option offered by the level up menu, picked during a run. Also called a skill in the code (`SkillDatabase`, `HeroSkills`).
- **Chip:** equipment. One chip per slot, 9 slots, levels 1 to 4. Equipped from the chips panel or from code.
- **EXP:** raises the hero level, which raises the base stats.
- **Skill EXP:** a separate bar that gives boost picks. A run allows 6 picks, and each level of Exp Gain Boost adds 2.
- **Run:** the current play session. Reset Run clears boosts and Skill EXP, and keeps level and EXP.
- **Team:** Hero, Enemy or Neutral. It decides who can hurt whom, so the kit does not need special layers or tags for damage.
- **Element:** Normal, Fire, Ice, Thunder, Frailty or Weakness, on attacks and on characters.
- **Status:** Burn, Freeze, Weakness or Frailty. Works the same on the hero, enemies and companions.
- **Intensity:** the distance in meters a hit pushes its target.
- **Hit stop:** a short freeze of the hero animation when a sword hit lands. It does not change the game time.

Number conventions

- Attack speed and movement speed: 100 = normal.
- Critical chance in percentage points: 5 = 5%. Critical damage is a bonus: 30 = +30%.
- Dodge, drop chance and damage reduction are fractions from 0 to 1 in code.
- A field's value in the code can differ from its value in the prefab, and the prefab is what counts in the game. Example: Pickup `healthPercent` is 0.1 in code and 0.25 on the Health pickup.

Setup Wizard

Open it from **Tools > Zeuk Games > Cyber Combat Kit > Setup Wizard**. It also opens after the import.

The top bar opens the other tools: **Boosts and Chips**, **Effect Maker**, **Sound Library**, **Hero Animations** and **Check Setup**. The bottom bar shows the output folder, with **Change**, **Documentation** and **Demo Scene**. The output folder is `Assets/My Combat Kit` by default and must be inside `Assets`.

Project tab

Each item is green (done), red (required) or yellow (recommended), with a button that fixes it.

ITEM	STATE IF MISSING	BUTTON	WHAT IT DOES
Input System	Red	**Enable**	Sets Active Input Handling to Both. Unity restarts.
TextMeshPro Resources	Red	**Import**	Imports the TMP essential resources, once per project.
AI Navigation	Red	**Install**	Installs the package that bakes the NavMesh.
Layers	Yellow	**Name Layers**	Names layers 9 (hero and companions) and 23 (enemies). It only names them, no collision changes.
Color Space	Yellow	**Use Linear**	The effects were made in Linear. In Gamma they look washed out or too bright.
Render Pipeline	Red	**Open Graphics**	Opens Project Settings > Graphics. Install URP and set a URP Asset there.

Open Demo Scene opens the demo.

Hero tab

1. **Character Model.** Drag a rigged character (FBX, or a prefab made from one). Empty keeps the default hero model. The window reports the height. If the rig is not Humanoid, click **Make It Humanoid**. If Unity can't map the bones, select the model, open its Rig tab and click Configure.
2. **Model parts.** Listed when the model has 2 or more meshes. Untick what you don't want, like a weapon or effect that comes with the model. Unticking everything makes the hero invisible.
3. **Weapons (optional).** Drag a **Sword** and a **Gun**. They get the size, direction and position of the default weapons. Click **Flip** if one points backwards.
4. **Prefab Name**, then **Create Hero**. Under **Advanced**, **Base Hero** picks another hero prefab to copy.

Weapons, effects and sounds move to the same body parts of your model. After creating, the row shows **Select**, **Edit** and **Add To Scene**.

Enemies tab

1. **Based on.** Pick any of the 21 enemies, or the Training Dummy. The new enemy copies its behaviour, attacks and effects.
2. **Model (optional).** Any model works, FBX or prefab. With a model you get **Model Scale** (the window shows the height in the game; the collider and NavMesh agent follow), **Flying** and **Animator Controller**. Scripts of the model are not copied, except DynamoBone. Without a model, **Armor Color** tints the drone.
3. **Attacks.** Shown for enemies with guns. **Projectile** changes what the guns shoot (Bomber Bot and Xeno Bot keep their bomb). **Change Element** sets the element of the hits.
4. **Stats. Health**, **Damage** and **Move Speed**.
5. **Prefab Name**, then **Create Enemy**.

Then click **Add To Spawner**. **Add To Test Panel** appears when the scene has one, like the demo.

Companions tab

1. **Based on.** Kit companions and your own. The new one copies its abilities.
2. **Model (optional).** With **Model Scale**, **Flying** and **Animator Controller**. Without a model, **Body Color** tints the drone.

3. **Menu. Display Name**, **Icon** and **Health**. The health you set becomes the level 1 value of the health stat. The other stats copy the base companion.
4. **Prefab Name**, **Add To Companion Menu**, then **Create Companion**.

Scene tab

Hero Prefab picks the hero and **Enemy Waves** adds the spawner. **Set Up Scene** adds everything the open scene is missing and keeps what is already there. Every step can be undone. **New Combat Scene** creates a new scene with everything: save it with Ctrl+S.

ROW	WHAT IT IS	BUTTON
Hero	The hero prefab.	**Add**
Camera	Top-down camera that follows the hero.	**Add**
Combat Manager	HUD, pause, skill, chip and companion menus, pickups and damage numbers.	**Add**
EventSystem	Lets the menus receive mouse, touch and gamepad input.	**Add**
Ground	A surface with a collider under the hero. If the ground layer doesn't collide with the hero layer, the row says so.	**Add** or **Physics Settings**
NavMesh	Walkable area of enemies and companions.	**Bake** or **Bake Again**
Enemy Waves	Optional. Spawns waves around the hero.	**Add**

Bake the NavMesh again after changing the level.

Check Setup

Open it from **Tools > Zeuk Games > Cyber Combat Kit > Check Setup**, or from the top bar of the wizard. The window answers one question: is everything set up? It checks the project, the open scene, your prefabs and the kit data. **Check Again** runs it again and **Show OK** also lists what passed.

GROUP	MESSAGE	SEVERITY	BUTTON	BY HAND
Project	Input System	Error	Enable	Set Active Input Handling to Both, then restart.
Project	TextMeshPro Resources	Error	Import	Window > TextMeshPro > Import TMP Essential Resources.
Project	AI Navigation	Error	Install	Add com.unity.ai.navigation in the Package Manager.
Project	Render Pipeline	Error	Open Graphics	Install URP and set a URP Asset.
Project	Layers	Warning	Name Layers	Name layers 9 and 23.
Project	Color Space	Warning	Use Linear	Player Settings > Color Space.
Open Scene	There is no hero in the scene.	Error	Set Up Scene	Drop a hero prefab.
Open Scene	N heroes in the scene: keep only one.	Error		Delete the extras.
Open Scene	No ground collider under the hero: it will fall.	Error	Add Ground	Add a collider under the hero.
Open Scene	The hero has no CharacterController.	Error		Add it, or start from the kit hero.
Open Scene	The hero has no Skill Database (HeroSkills > Database): no level up boosts.	Error		Assign one on HeroSkills.
Open Scene	No Combat Manager (HUD, menus, damage numbers).	Error	Add	Drop the prefab.
Open Scene	No Combat Camera.	Error	Add	Drop the prefab.
Open Scene	No EventSystem: the menus can't be clicked.	Error	Add	Add an EventSystem with Input System UI Input Module.

GROUP	MESSAGE	SEVERITY	BUTTON	BY HAND
Open Scene	The EventSystem uses the old input module: use Input System UI Input Module.	Warning		Replace the module.
Open Scene	No NavMesh: enemies and companions can't move.	Error	Bake NavMesh	Bake a NavMesh.
Open Scene	The hero is not on the NavMesh: bake it again after changing the level.	Warning	Bake NavMesh	Move the hero or bake again.
Open Scene	[Spawner] has no enemies.	Warning		Add enemies to it.
Open Scene	[Spawner] has empty enemy entries.	Error	Remove empty	Remove them in the Inspector.
Open Scene	The companion menu has empty entries.	Error	Remove empty	Remove them on CompanionSelector.
Open Scene	The enemy test panel has empty entries.	Warning	Remove empty	Remove them on EnemyTestPanel.
Open Scene	[Object] has N missing script(s).	Error	Remove	Remove the components.
Your Prefabs	[Prefab]: N missing script(s).	Error		Open the prefab and remove them.
Your Prefabs	[Prefab]: N reference(s) to deleted assets (shown as Missing).	Warning		Assign the fields again.
Your Prefabs	[Prefab]: enemy without NavMeshAgent.	Error		Add one.
Your Prefabs	[Prefab]: gun '[name]' has no projectile.	Error		Set projectile or lobProjectile on EnemyGun.
Your Prefabs	[Prefab]: companion without NavMeshAgent.	Error		Add one.
Your Prefabs	[Prefab]: no icon for the companion menu.	Warning		Set the icon.
Your Prefabs	[Prefab]: no Damageable (health).	Error		Add it.
Your Prefabs	[Prefab]: N audio object(s) with no Sound and no clips.	Warning		Pick a Sound on RandomAudio.
Kit Data	The Sound Library is missing.	Error	Create	
Kit Data	No sounds yet: the game is silent. Add your clips in the Sound Library (Auto-fill takes a folder).	Warning	Open	Normal right after import.
Kit Data	The Sound Library has N empty clip slot(s).	Warning		Remove or fill them.
Kit Data	No Chip Library.	Error	Create	
Kit Data	The Chip Library has N deleted chip(s).	Warning	Remove	
Kit Data	Chip '[name]' has no effects.	Warning	Edit	Add effects.
Kit Data	Your chips are in the kit Chip Library: a kit update would replace them. Use Make my own copy.	Warning	Open	
Kit Data	Boost '[name]' has no effects.	Warning	Edit	Add effects.
Kit Data	Boost '[name]' has no key: it can't be picked.	Error	Edit	
Kit Data	Two boosts share the key '[key]': give one another key.	Error		Rename one.
Kit Data	Your boosts are in the kit Skill Database: a kit update would replace them. Use Make my own copy.	Warning	Open	

Boost and Chip Creator

Open it from **Tools > Zeuk Games > Cyber Combat Kit > Boost and Chip Creator**. It has two tabs: **Boosts (level up)** and **Chips**. No code needed.

Create a boost

You will get: a new card in the level up menu.

Before you start: a scene with your hero. Click **Make my own copy** first. It copies the Skill Database to your folder and uses it on the hero of the open scene, so kit updates never replace your boosts.

1. Click **+ New Boost**.
2. Set **Name** and **Icon**.
3. Set **Max Level**: how many times it can be picked. 0 = unlimited, 1 = unique.
4. Set **Weight**: the chance of being offered compared to the others. 1 = normal.
5. Tick **Gun Boost** if it should not be offered when the hero has no gun (Super Charged Sword).
6. Click **+ Add Effect** and pick a type. Each effect has one value per level.
7. Read the **Level up card** preview. The text is made from the effects, or write your own in **Card Texts (optional)**.

It worked if: the card appears in the level up menu. Press F2 in the Editor for a pick. It is one option among many, so raise **Weight** while testing.

Default boosts can also get extra effects: tick **Show default boosts** and pick one. Changing the text of a default boost does not change what it does.

How the draw works

The menu shows 3 cards (`optionsPerLevelUp`), drawn without repeats, weighted by **Weight**. A boost is not offered when it is turned off, at its max level, an aura while another aura is active, a gun boost after Super Charged Sword, or Restore Companion with no companion in need.

Create a chip

Before you start: click **Make my own copy** in the **Chips** tab, so kit updates never replace your chips.

1. Click **+ New Chip**. Chips are saved in `Assets/My Combat Kit/Chips`.
2. Set **Name**, **slot** and **icon**.
3. Add effects with a value for each of the 4 levels.
4. Read the **Chips panel** preview, or write **Texts per level (optional)**.

It worked if: the chip shows up in the chips panel (Tab) by itself. From code, equip it with `HeroChips.Equip(chip, level)`, or add it to `HeroChips.startingChips`.

Default chips can be renamed, get an icon, get extra effects, or be hidden by unticking **In chips panel**. Their own effect stays in code. "When Picked" effects only work on boosts, not on chips.

Every effect type

Values are per level. Element 0 is level 1, and higher levels use the last value.

TYPE	VALUE	CARD TEXT AT VALUE 10
Attributes: Damage Percent	Value (%)	+10% damage
Attributes: Flat Damage	Damage	+10 damage
Attributes: Attack Speed Percent	Value (%)	+10% attack speed
Attributes: Flat Attack Speed	Attack speed	+10 attack speed
Attributes: Gun Attack Speed Percent	Value (%)	+10% gun attack speed
Attributes: Flat Gun Attack Speed	Attack speed	+10 gun attack speed
Attributes: Critical Chance	Chance (%)	+10% critical chance
Attributes: Critical Damage Percent	Value (%)	+10% critical damage
Attributes: Move Speed Percent	Value (%)	+10% movement speed
Attributes: Max Health Percent	Value (%)	+10% max HP
Attributes: Dodge Chance	Value (%)	+10% dodge

TYPE	VALUE	CARD TEXT AT VALUE 10
Attributes: Damage Reduction	Value (%)	-10% damage taken
Attributes: Healing Percent	Value (%)	+10% healing
Attributes: Headshot Chance	Value (%)	+10% headshot chance
Attributes: Max Ammo	Ammo	+10 max ammo
Attributes: Exp Gain Percent	Value (%)	+10% EXP
Attributes: Health Drop Chance	Value (%)	+10% health drop chance
Attributes: Ammo Drop Chance	Value (%)	+10% ammo drop chance
Attributes: Item Drop Chance	Value (%)	+10% item drop chance
Attributes: Damage Per Health Lost	Damage per 1% HP lost	+10 damage for each 1% HP lost
Attributes: Attack Speed Per Health Lost	Attack speed per 1% HP lost	+10 attack speed for each 1% HP lost
On Hit: Burn On Hit	Burn per second (% of the hit)	Hits burn for 10% of the damage per second (5s)
On Hit: Freeze On Hit	Slow (%)	Hits slow by 10% (5s)
On Hit: Weakness On Hit	Damage reduction (%)	Hits weaken: -10% damage dealt (5s)
On Hit: Frailty On Hit	Extra damage taken (%)	Hits apply frailty: +10% damage taken (5s)
On Hit: Life Steal	Healed (% of the hit)	Hits heal 10% of the damage
On Kill: Heal On Kill	Healed (% max HP)	Kills heal 10% max HP
On Kill: Explode On Kill	Explosion damage (% of hero damage)	Kills explode for 10% damage (5m)
Over Time: Health Regen	% max HP per second	Regenerate 10% max HP per second
When Picked (boosts only): Instant Heal	Healed (% max HP)	Heal 10% max HP now
When Picked (boosts only): Refill Ammo	No value	Refill the ammo
When Picked (boosts only): Add Shield Charges	Shield charges	+10 shield charges
When Picked (boosts only): Restore Companions	No value	Restore your companion

Fields of an effect: **source** (Sword and Gun, Sword or Gun), **chance** from 0 to 100, **duration** in seconds (for Explode On Kill it is the radius in meters), **vfx** and **sound**. Only the fields an effect type uses are shown.

Three complete examples

Vampire Fang, life steal on the sword. Boost, Max Level 3. Effect **On Hit: Life Steal**, source Sword, chance 100, values 5, 10, 15. Card text: "Sword hits heal 5% of the damage".

Glass Cannon, more damage, less health. Boost, Max Level 1. Effect **Attributes: Damage Percent**, value 50. Effect **Attributes: Max Health Percent**, value -30. Card text: "+50% damage. -30% max HP".

Regen Core, a chip with 4 levels. Chip, slot Body. Effect **Over Time: Health Regen**, values 0.5, 1, 1.5, 2. Panel text: "Regenerate 0.5% max HP per second" at level 1.

Effect Maker

Open it from **Tools > Zeuk Games > Cyber Combat Kit > Effect Maker**. It makes a new version of an effect. The original is never changed.

1. **Effect.** Pick from **Kit effects**, or drag any prefab with particles into **Effect prefab**.
2. **Look. Color**: Keep Colors, Change Hue (every color takes the hue of the new color and keeps its brightness) or Multiply (tints). **Size** from 0.1 to 5, **Speed** from 0.1 to 4 (2 = twice as fast) and **Amount** from 0.1 to 3 (0.5 = half the particles). **Preview in Scene** plays it in the Scene view, with no need to select it.

3. **Create.** Set a **Name** and click **Create Effect**. The prefab and its recolored materials are saved in `Assets/My Combat Kit/Effects`.
4. **Use it.** The window lists the prefabs that use the original. **Use new effect** swaps it in one click. On a kit prefab it warns you, because a kit update would undo the change: do it on your own copy.

Example, a blue bullet that turns green. Pick the bullet effect, choose **Change Hue**, set a green **New Color**, click **Create Effect**, then **Use new effect** on your enemy or projectile prefab.

Sound Library

The kit ships with no audio files, and every sound is already wired. Open **Tools > Zeuk Games > Cyber Combat Kit > Sound Library** and drop your clips in each sound. Every prefab that uses that sound plays them, with no other setup. Several clips in one sound means one at random each time.

- **Search** filters the list. Sounds are grouped by Hero, Sword, Gun, Skills and Chips, Status Effects, Enemies, Companions, Pickups and UI.
- Each sound has its own volume, plus a master volume.
- A sound with no clips is silent and raises no error.

Auto-fill from a folder

1. Put your clips in a folder inside `Assets`.
2. Click **Auto-fill from a folder...** and pick it.
3. The window lists the matches: `sword_swing_01` goes to Sword Swing and `footstep_concrete` to Footstep.
4. Click **Fill empty sounds** or **Replace all of these**.

Clips with no match are listed, and you can drop them by hand.

One clip on one prefab

To use a different clip on a single prefab, fill **Clips** on its `RandomAudio`. It then ignores the library. The inspector of `RandomAudio` shows which sound it plays and if it has clips.

Loops and mixer

Loops (auras, status effects, healer beam, companion engine) already have Loop on their AudioSource. The Audio Sources use `Audio/Combat Audio Mixer.mixer`. The Audio Listener stays on the hero, kept by `TopDownCamera.audioListener`, so 3D sounds are heard from the hero.

A sound on a new object

Add an AudioSource and a `RandomAudio`, pick the **Sound** and reference it in the script field, for example `EnemyAI.deathAudio`.

All 67 sounds

ID	SOUND	WHERE IT PLAYS
100	Footstep	Hero footsteps (walk and run).
101	Dash	Hero dash.
102	FireDash	Dash with the Fire Dash chip.
103	IceDash	Dash with the Ice Dash chip.
104	ThunderDash	Dash with the Thunder Dash chip.
105	Dodge	Hero dodges an attack.
106	HeroHurt	Hero takes damage (voice).

ID	SOUND	WHERE IT PLAYS
107	HeroDeath	Hero dies (voice).
108	HeroAttackVoice	Hero attack shout.
109	HeroRespawn	Hero spawns or respawns.
110	LevelUp	Hero levels up.
200	SwordSwing	Each sword swing of the combo.
201	SwordHit	Sword hits an enemy.
202	Special1	Special attack 1 (Charging Core).
203	Special2	Special attack 2.
204	Special3	Special attack 3.
205	Special4	Special attack 4.
206	ChargeReady	A Charging Core charge is ready.
207	ChargingLoop	Loop while charging (loop the AudioSource).
208	BulletReflect	Sword reflects an enemy bullet.
300	HeroShot	Hero gun shot.
301	HeroBulletHit	Hero bullet hits something.
302	Headshot	Hero bullet headshot.
400	ShieldUp	Shield skill turns on.
401	ShieldHit	Shield blocks a hit.
402	ShieldBreak	Shield breaks.
403	FireAura	Fire aura skill (loop).
404	IceAura	Ice aura skill (loop).
405	ThunderAura	Thunder aura skill (loop).
406	WeaknessAura	Weakness aura skill (loop).
407	FrailtyAura	Frailty aura skill (loop).
408	AuraTick	Each damage tick of an aura.
409	ChipBomb	Bomb chips (Alpha, Beta, Power Bomb) explode.
500	BurnLoop	Burning (loop). Hero, enemies and companions.
501	FreezeLoop	Slowed by ice (loop).
502	WeaknessLoop	Weakened (loop).
503	FrailtyLoop	Frail (loop).
504	FrozenSolid	Freezes solid.
505	IceShatter	The ice breaks at the end of the freeze.
600	EnemyAttack	Enemy starts an attack (and the melee swing of Robot Creep / Stinger).
601	EnemyShot	Enemy gun shot.
602	EnemyBulletHit	Enemy bullet hits something.
603	EnemyHit	Enemy takes damage.
604	EnemyDeath	Enemy dies.
605	EnemyContactHit	Enemy melee or body hits the hero (Robot Creep, Stinger, Saw Bot, Jumper Bot).

ID	SOUND	WHERE IT PLAYS
606	EnemyJump	Jumper Bot jumps.
607	EnemyLanding	Jumper Bot lands.
608	EnemyBounce	Saw Bot bounces off a wall.
609	BombLaunch	Bomb or goo is thrown (Bomber Bot, Xeno Bot).
610	BombExplosion	Bomb or goo lands.
611	TeslaCharge	Tesla Tower charges.
612	TeslaShock	Tesla Tower shocks.
700	CompanionMove	Companion moving (engine or steps).
701	CompanionHit	Companion takes damage.
702	CompanionDeath	Companion is destroyed.
703	CompanionTeleport	Companion dodges or teleports.
704	CompanionSwordSwing	Knight Drone sword swing.
705	CompanionSwordHit	Knight Drone sword hits.
706	CompanionShot	Ranged / Healer Drone shot.
707	CompanionBulletHit	Companion bullet hits something.
708	CompanionDeflect	Knight Drone deflects a bullet.
709	CompanionHeal	Healer Drone heals.
710	CompanionHealBeam	Healer Drone beam (loop).
711	CompanionAuraPulse	Aura companion pulse.
800	PickupCollect	Health, ammo or EXP pickup collected.
801	SkillMenuOpen	Level up skill menu opens.
802	SkillPick	A skill is picked.

Hero Animations

Open it from **Tools > Zeuk Games > Cyber Combat Kit > Hero Animations**. It swaps the hero animations without touching the Animator.

You will get: your clips on the hero, with hits and footsteps at the right moments.

Before you start: add the hero to the open scene, for the preview. Clips must be Humanoid.

1. The first time, click **Create Backup and Start**. Nothing changes in your hero yet.
2. Click **New Set**. It makes an editable copy. The default set is the backup.
3. Drop a clip in each action you want to change. An empty action keeps the default animation.
4. Click **Auto-detect**. It plays the clip on the hero and finds the hits (fast weapon hand) and footsteps (foot coming down). Adjust with the sliders.
5. Click **Preview** to check it on the hero in the open scene.
6. Clips without root motion: tick **Made in place** and set the speed in m/s. For walk and run, the window suggests the playback speed that keeps the feet on the ground, with a button like **Use x1.23**.
7. Click **Apply to Hero**.

It worked if: in Play Mode the hit lands when the blade connects.

To undo: Restore Default Animations puts the original ones back. **Use Default** does it for one action.

Clips don't need animation events: the moments you mark are sent by `HeroAnimationTiming`. A clip with its own animation events uses them as they are. Transition times, the sword chase and the dash push follow the new hit times automatically. Applying a set does not change the damage or intensity of a hit (see Sword).

Do not edit `Characters/Hero/Animations/Default`. It is the backup.

All actions

GROUP	ACTION	WHAT IT NEEDS
Locomotion	Idle	Standing still, sword in the right hand. Must loop.
Locomotion	Walk	Slow movement (small stick tilt). Must loop. Can be made in place.
Locomotion	Run	Full speed movement. Must loop. Can be made in place.
Dash & Dodge	Dash	Quick burst forward. Set **Invulnerable until**.
Dash & Dodge	Dodge	Played when an attack is dodged (dodge stat).
Sword Combo	Hit 1	First sword hit. Mark when the blade hits.
Sword Combo	Hit 2	Second hit, starts while hit 1 ends.
Sword Combo	Hit 3 (finisher)	Strongest hit of the combo.
Special Attacks	Special 1	Charged attack 1 (Charging Core chip). Usually a dash strike.
Special Attacks	Special 2	Charged attack 2.
Special Attacks	Special 3	Up to three hits.
Special Attacks	Special 4	Finisher of the special chain.
Special Attacks	Special Recovery	Back to the stance after Special 3.
Gun	Shoot	One shot. Mark the moment the bullet leaves.
Gun	Machine Gun Start	From the shot pose to the rapid fire pose (Machine Gun chip).
Gun	Machine Gun Loop	Rapid fire. Must loop. Every shot mark fires a bullet.
Gun	Machine Gun End	Lowers the gun.
Hurt, Death & Spawn	Hurt, Death, Spawn	Spawn plays when the hero appears or respawns.
Jump & Landing	Going Up, Falling	In the air. Must loop.
Jump & Landing	Land, Land (high fall), Land Moving, Land Running Fast	Landing variations.

Common mistakes

- **The rig is not Humanoid:** the clip does not play on the hero. Set Animation Type to Humanoid in the clip's import settings.
- **The hero slides or stands still while moving:** the clip has no root motion. Tick **Made in place**.
- **The hit lands too early or too late:** adjust the **Hit** slider, then use **Preview**.

Hierarchy menu and prefabs

Right click in the Hierarchy, or use **GameObject > Cyber Combat Kit**: **Set Up Scene**, **Hero**, **Combat Camera**, **Combat Manager (HUD and Menus)**, **Enemy Waves**, **Bake NavMesh**.

`Prefabs/Managers` has everything a scene needs, ready to drop in the Hierarchy:

PREFAB	CONTENTS
`Combat Manager`	HUD, pause, skill, chip and companion menus, damage numbers, pickup settings, companion selector.
`Combat Camera`	Top-down follow camera with screen shake.

PREFAB	CONTENTS
`Enemy Spawner`	Waves of enemies around the hero.

They find the hero by themselves, so no reference has to be assigned. The scene also needs an EventSystem with the Input System UI module and a baked NavMesh. **Set Up Scene** adds both.

PART 3. SYSTEMS, RULE BY RULE

Hero

The hero moves by root motion: the Animator moves it and the speed comes from the run clip and the Speed stat. Movement is relative to the world, not to the camera.

FIELD ON HEROCONTROLLER	PREFAB VALUE	MEANING
`maxForwardSpeed`	8	Top value of the ForwardSpeed animator parameter.
`gravity`	20	Fall acceleration.
`dashCooldown`	0.1	Seconds before the next dash.
`hitStopPerIntensity`	0.085	Hit stop seconds per point of intensity, kept between 0.06 and 0.18 s.
`hurtArmorTime`	1	Seconds after being hurt in which another hurt animation can't interrupt you.
`knockbackMultiplier`	0.5	Meters the hero is pushed per point of intensity, up to 5 m.
`elementalDashRadius`	1.3	Reach in meters of Fire, Ice and Thunder Dash.

Dash

The hero can't be hit during the dash and passes through enemies (`dashIgnoreLayers`). With **Double Dash** you get 2 dashes before the cooldown. An elemental dash costs 1 ammo. With no ammo it is a normal dash.

Taking damage

Attacking gives armor: being hit does not interrupt a swing. After a hurt animation, there is 1 second of armor. Steel Body removes hurt interruptions. A burn tick always plays the hurt animation. Bullets, burns and auras don't push the hero.

Death and respawn

`CombatManager` shows the death panel, waits `respawnDelay` (3 s) and revives the hero at `respawnPoint` , or where it started. The hero gets 2 seconds of protection. Dying does not change level, boosts, chips or ammo. Without the Combat Manager, call `hero.Revive` yourself (see recipe 18).

Swap the ponytail physics

The hero ponytail uses `DynamoBone` . See Component reference and `Documentation/DynamoBone.md` .

Stats and progression

Base stats per level are in `Data/Hero Stats Table.asset` . Edit the asset to rebalance, no code needed. Level 1: 100 HP, 30 damage, 100 speed, 100 attack speed, 5% critical chance, +30% critical damage.

Final stats:

```
maxHealth      = table x maxHealthMultiplier (minimum 1)
damage         = table x damageMultiplier + flatDamage (minimum 0)
attackSpeed    = table x attackSpeedMultiplier + flatAttackSpeed (minimum 10)
gunAttackSpeed = attackSpeed x gunAttackSpeedMultiplier + flatGunAttackSpeed (minimum 10)
critChance     = table + critChance modifiers
critDamage     = table x critDamageMultiplier
speed          = table x speedMultiplier (minimum 10)
dodge          = kept between 0 and 0.9
```

Multipliers multiply each other and flat values add up. Boosts and chips feed these through `IStatContributor`.

EXP and Skill EXP

EXP raises the level and the extra carries over. Skill EXP gives boost picks. It is accumulated: `skillExp[n]` is the total needed for the pick after `n` picks. The limit per run is `baseSkillLimit` (6) plus 2 for each level of Exp Gain Boost. At the limit the bar stops and the HUD shows MAX.

All 100 levels

Columns: level, EXP to the next level, max HP, speed, attack speed, damage, critical chance, critical damage.

▼ **Show the 100 levels**

LV	EXP	HP	SPEED	ATK SPEED	DAMAGE	CRIT %	CRIT DMG
1	450	100	100	100	30	5	30
2	515	131	100	100	31	5	30
3	1,095	164	100	100	33	5	31
4	2,255	196	100	100	34	5	31
5	4,575	230	101	100	36	5	31
6	9,215	264	101	100	37	5	32
7	18,495	299	101	100	39	5	32
8	37,055	335	101	100	40	5	32
9	74,175	372	101	100	42	5	33
10	148,415	409	101	101	43	5	33
11	148,773	447	101	101	44	6	33
12	223,224	486	101	101	46	6	34
13	334,901	526	101	101	47	6	34
14	502,416	566	101	101	48	6	34
15	753,689	607	102	101	50	6	35
16	1,130,598	649	102	101	51	6	35
17	1,695,963	692	102	101	52	6	36
18	2,544,009	736	102	101	54	6	36
19	3,816,078	780	102	101	55	6	36
20	5,724,182	826	102	102	56	6	37
21	3,435,315	872	102	102	58	6	37
22	4,122,443	919	102	102	59	6	38
23	4,946,997	967	102	102	60	6	38

LV	EXP	HP	SPEED	ATK SPEED	DAMAGE	CRIT %	CRIT DMG
24	5,936,462	1016	102	102	62	6	39
25	7,123,819	1066	103	102	63	6	39
26	8,548,648	1117	103	102	64	6	40
27	10,258,442	1168	103	102	65	6	40
28	12,310,196	1221	103	102	66	7	41
29	14,772,300	1274	103	102	68	7	41
30	17,726,824	1328	103	103	69	7	42
31	21,272,256	1384	103	103	70	7	42
32	25,526,772	1440	103	103	71	7	43
33	30,632,190	1497	103	103	72	7	43
34	36,758,692	1555	103	103	74	7	44
35	44,110,496	1614	104	103	75	7	45
36	52,932,660	1675	104	103	76	7	45
37	63,519,256	1736	104	103	77	7	46
38	76,223,176	1798	104	103	78	7	46
39	91,467,870	1861	104	103	79	7	47
40	109,761,510	1925	104	105	80	7	48
41	131,713,880	1990	104	105	81	8	48
42	158,056,720	2057	104	105	82	8	49
43	189,668,130	2124	104	105	84	8	50
44	227,601,820	2193	104	105	85	8	50
45	273,122,240	2262	105	105	86	8	51
46	327,746,780	2333	105	105	87	8	52
47	393,296,200	2404	105	105	88	8	53
48	471,955,500	2477	105	105	89	9	53
49	566,346,600	2551	105	105	90	9	54
50	679,616,060	2626	105	108	91	9	55
51	407,771,300	2703	105	108	92	9	56
52	448,548,480	2780	105	108	93	9	57
53	493,403,400	2859	105	108	94	10	57
54	542,743,800	2938	105	108	95	10	58
55	597,018,240	3019	106	108	96	10	59
56	656,720,100	3102	106	108	97	10	60
57	722,392,200	3185	106	108	97	10	61
58	794,631,500	3270	106	108	98	11	62
59	874,094,700	3356	106	108	99	11	63
60	961,504,260	3443	106	110	100	11	64
61	1,057,654,700	3531	106	111	101	11	65

LV	EXP	HP	SPEED	ATK SPEED	DAMAGE	CRIT %	CRIT DMG
62	1,163,420,300	3621	106	112	102	11	66
63	1,279,762,400	3712	106	113	103	12	67
64	1,407,738,600	3804	106	114	104	12	68
65	1,548,512,600	3898	107	115	105	12	69
66	1,703,364,000	3993	107	116	105	12	71
67	1,873,700,400	4089	107	117	106	13	72
68	2,061,070,500	4187	107	118	107	13	73
69	2,267,177,700	4286	107	119	108	13	74
70	2,493,895,400	4386	107	120	109	13	75
71	2,743,285,000	4488	107	121	109	14	77
72	3,017,613,600	4592	107	122	110	14	78
73	3,319,375,000	4696	107	123	111	15	79
74	3,651,312,600	4802	107	124	112	15	81
75	4,016,444,000	4910	108	125	113	15	82
76	4,418,088,400	5019	108	126	113	16	84
77	4,859,897,300	5130	108	127	114	16	85
78	5,345,887,000	5242	108	128	115	17	86
79	5,880,475,600	5355	108	129	115	17	88
80	6,468,523,500	5471	108	130	116	18	90
81	7,115,376,000	5587	108	131	117	18	91
82	7,826,914,000	5706	108	132	117	19	93
83	8,609,605,000	5825	108	133	118	20	95
84	9,470,565,000	5947	108	134	119	20	96
85	10,417,622,000	6070	109	135	119	21	98
86	11,459,384,000	6195	109	136	120	21	100
87	12,605,323,000	6321	109	137	121	22	102
88	13,865,855,000	6449	109	138	121	23	104
89	15,252,441,000	6579	109	139	122	23	106
90	16,777,685,000	6710	109	140	123	24	108
91	18,455,454,000	6843	109	141	123	25	110
92	20,300,999,000	6978	109	142	124	26	112
93	22,331,100,000	7115	109	143	124	26	114
94	24,564,210,000	7253	109	144	125	27	116
95	27,020,630,000	7393	110	145	125	28	118
96	29,722,694,000	7535	110	146	126	29	121
97	32,694,962,000	7679	110	147	126	30	123
98	35,964,457,000	7824	110	148	127	31	125
99	39,560,905,000	7972	110	149	128	31	128

LV	EXP	HP	SPEED	ATK SPEED	DAMAGE	CRIT %	CRIT DMG
100	43,516,994,000	8121	110	150	130	32	130

Sword

Three hits. Each hit lands once per target. The values live on the Animator states, not in a script.

STATE	DAMAGE MULTIPLIER	INTENSITY (M)	HIT STOP	DAMAGE AT LEVEL 1
HeroCombo1	0.5	0.3	0.06 s	15
HeroCombo2	0.8	0.8	0.068 s	24
HeroCombo3	1.0	4	0.18 s	30

Change the damage or push of a hit

Open `Characters/Hero/Animations/Hero Combat.controller`, select `HeroComboN` and change `damageMultiplier` and `damageIntensity` on `HeroComboAttackSMB`. The specials use `HeroSpecialAttackSMB` the same way.

Sword chase

If an enemy is ahead, within `meleeChaseRange` (10 m) and inside the spread, and farther than `meleeChaseMinDistance` (2.5 m), the hero advances toward it during the swing at up to `meleeChaseSpeed` (4). Enemies touching a sphere in front of the hero (`meleeFaceRadius`, 1.5 m) are faced automatically.

Charged specials

The **Charging Core** chip enables them. Every 3 shots give 1 charge, up to the chip level. With charges, the attack button plays a special, and the hero can't be hit during it. A normal combo clears the charges.

STATE	DAMAGE MULTIPLIER	INTENSITY (M)
SpecialAttack1	1	3
SpecialAttack2	2	1
SpecialAttack3	1.433	0.3
SpecialAttack4	6.5	6

Gun

`HeroGun` starts with 40 ammo. It aims at the closest target within `autoAimRange` (30 m). With no target, it fires forward. Ammo does not reload by itself: it comes from pickups, the Gun Reload boost and Reset Run.

Capacity, in order

```
capacity = baseAmmoCapacity (40)
Power Converter: x 0.5, or Lead Rain: x 1.5, or Ammo Core: + 20 (same slot, only one)
Machine Gun: + 55 / 65 / 85 / 110
+ Ammo Up boosts and Max Ammo data effects
Big Guns: x 0.5
Super Charged Sword: 0
```

Damage of a bullet, in plain words

1. Start from the hero damage, with a critical roll. Sharpshot adds to the chance and Leech Core halves the critical bonus.
2. Apply the weapon core chip: Power Converter x 1.5, Lead Rain x 0.5 or Headshot Core x 0.5.

3. Apply Multi Shot x 0.9, or Triple Shot x 0.7.
4. Multiply by the bullet type: normal 0.55, shotgun pellet 0.15 or machine gun 0.08.
5. Machine Gun ramps up the longer you hold: from 0.5 s and then from 2 s.
6. Each ricochet takes 30% off, each pierced target 33%, and a wall bounce 50%. Split bullets deal 70%.
7. Add the flat bonus from the gun boosts and Power Shot.
8. Apply Double Trouble x 2.5 and Big Guns x 2.

With a plasma chip (Flaming, Freezing or Thunder Shot) a bullet lands two hits that total 80%: 90% of that is elemental and 10% is normal.

Machine Gun and Shotgun

Machine Gun: hold the button for 0.2 s. It keeps aiming at the closest target. **Shotgun:** 5, 7, 9 or 11 pellets, 5 degrees apart.

Boosts

The texts, icons, max level and weight are in `Data/Skill Database.asset`. The effects of the 42 default boosts are in code, so changing a text does not change an effect. Max level 0 means unlimited. Only one aura per run.

BOOST	GROUP	MAX LEVEL	WEIGHT	WHAT IT DOES
Multi Shot	Gun	2	1	Fire 2 bullets in a row for 1 ammo. **Lv 1:** -10% gun damage / -15% gun attack speed. **Lv 2:** -10% gun damage / -15% gun attack speed.
Triple Shot	Gun	1	1	Fire 2 extra bullets diagonally. -30% gun damage / Still costs 1 ammo.
Split Shot	Gun	1	1	Bullets split into 2 side shots when they hit an enemy. Side shots deal 30% less damage / Side shots don't bounce off walls.
Ricochet Shot	Gun	1	1	Bullets jump to nearby enemies up to 3 times. 30% less damage on each jump.
Piercing Shot	Gun	1	1	Bullets pass through enemies. 33% less damage for each enemy pierced / With Ricochet, the last jump also pierces.
Wall Bouncing Shot	Gun	1	1	Bullets bounce off an obstacle once. 50% less damage after the bounce.
Headshot	Gun	3	1	Shots have a chance to kill an enemy instantly. **Lv 1:** 2.5% headshot chance. **Lv 2:** 4% headshot chance. **Lv 3:** 10% headshot chance.
Minor Gun Boost	Gun	Unlimited	1	Increase your gun damage. +3 gun damage.
Gun Boost	Gun	Unlimited	1	Increase your gun damage. +10 gun damage.
Gun Reload	Gun	Unlimited	1	Refill your gun ammo.
Minor Ammo Up	Gun	Unlimited	1	Increase your maximum ammo. +5 max ammo.
Major Ammo Up	Gun	Unlimited	1	Increase your maximum ammo. +15 max ammo.
Double Trouble	Gun	1	1	Each shot costs double ammo and hits much harder. Each shot costs 2 ammo / +150% gun damage.
Big Guns	Gun	1	1	Halve your maximum ammo and double your gun damage. -50% max ammo / +100% gun damage.
Small Attack Boost	Sword and Damage	Unlimited	1	Increase your base damage. +10% base damage.
Great Attack Boost	Sword and Damage	Unlimited	1	Increase your base damage. +20% base damage.
Small Attack Speed Boost	Speed	Unlimited	1	Increase your base attack speed. +5% base attack speed.
Great Attack Speed Boost	Speed	Unlimited	1	Increase your base attack speed. +12% base attack speed.
Small Critical Chance Boost	Critical	Unlimited	1	Increase your critical hit chance. +2% critical hit chance.

BOOST	GROUP	MAX LEVEL	WEIGHT	WHAT IT DOES
Great Critical Chance Boost	Critical	Unlimited	1	Increase your critical hit chance. +10% critical hit chance.
Small Critical Damage Boost	Critical	Unlimited	1	Increase your critical hit damage. +10% critical hit damage.
Great Critical Damage Boost	Critical	Unlimited	1	Increase your critical hit damage. +25% critical hit damage.
Speed Up	Speed	Unlimited	1	Increase your movement speed. +5% movement speed.
Great Speed Up	Speed	Unlimited	2	Increase your movement speed. +20% movement speed.
Super Charged Sword	Sword and Damage	1	1	Give up your gun ammo for more damage. -100% max ammo / +50% damage.
Dodge	Defense	1	1	Gain a chance to fully dodge attacks. +20% dodge chance.
Shield Charge	Defense	Unlimited	1	Gain a shield that blocks the next 4 attacks.
Max HP Boost	Defense	Unlimited	1	Increase your max HP. +25% max HP.
Heal Boost	Defense	Unlimited	1	Heal more and find more healing items. +20% healing / +5% healing item drop chance.
Instant Heal	Defense	Unlimited	1	Recover all your HP.
HP Sacrifice	Sword and Damage	Unlimited	1	Trade max HP for damage. -10% max HP / +30% base damage.
Fury	Speed	3	1	Attack faster as you lose HP. **Lv 1:** +0.4 attack speed per 1% HP lost. **Lv 2:** +0.7 attack speed per 1% HP lost. **Lv 3:** +1.1 attack speed per 1% HP lost.
Berserk	Sword and Damage	3	1	Deal more damage as you lose HP. **Lv 1:** +0.5 damage per 1% HP lost. **Lv 2:** +1 damage per 1% HP lost. **Lv 3:** +2 damage per 1% HP lost.
Agility	Defense	3	1	Dodge more often as you lose HP. **Lv 1:** +0.2% dodge chance per 1% HP lost. **Lv 2:** +0.3% dodge chance per 1% HP lost. **Lv 3:** +0.45% dodge chance per 1% HP lost.
Fire Aura	Aura	3	1	Surround yourself with a small fire aura. **Lv 1:** Deals 10% of your damage to enemies it touches / Burns them for 10% of your damage per second. **Lv 2:** Deals 20% of your damage to enemies it touches / Burns them for 20% of your damage per second. **Lv 3:** Deals 30% of your damage to enemies it touches / Burns them for 30% of your damage per second.
Ice Aura	Aura	3	1	Surround yourself with a small ice aura. **Lv 1:** Deals 5% of your damage to enemies it touches / Slows them by 10% / Enemies inside it for 4s freeze for 2s. **Lv 2:** Deals 10% of your damage to enemies it touches / Slows them by 20% / Enemies inside it for 4s freeze for 2s. **Lv 3:** Deals 20% of your damage to enemies it touches / Slows them by 40% / Enemies inside it for 4s freeze for 2s.
Thunder Aura	Aura	3	1	Surround yourself with a small thunder aura. **Lv 1:** Deals 30% of your damage to enemies it touches / Lightning also strikes enemies around them for 20% of your damage. **Lv 2:** Deals 40% of your damage to enemies it touches / Lightning also strikes enemies around them for 25% of your damage. **Lv 3:** Deals 50% of your damage to enemies it touches / Lightning also strikes enemies around them for 30% of your damage.
Weakness Aura	Aura	3	1	Surround yourself with a small weakness aura. **Lv 1:** Deals 5% of your damage to enemies it touches / They deal 30% less damage for 10s. **Lv 2:** Deals 10% of your damage to enemies it touches / They deal 40% less damage for 10s. **Lv 3:** Deals 20% of your damage to enemies it touches / They deal 50% less damage for 10s.
Frailty Aura	Aura	3	1	Surround yourself with a small frailty aura. **Lv 1:** Deals 5% of your damage to enemies it touches / They take 15% more damage for 10s. **Lv 2:** Deals 10% of your damage to enemies it touches / They take 20% more damage for 10s. **Lv 3:** Deals 20% of your damage to enemies it touches / They take 25% more damage for 10s.
Exp Gain Boost	Companion and Loot	Unlimited	1	Earn more EXP and pick more skills. +30% EXP / +2 max skills.
Loot Drop Boost	Companion and Loot	Unlimited	1	Increase the chance of ammo drops. +3% ammo drop chance.
Restore Companion	Companion and Loot	Unlimited	1	Restore your companion's health. Heals your companion fully / Revives it if it is dead.

Auras

LEVEL	RADIUS
1	2.1 m
2	3 m
3	3.9 m

Ticks happen every 1.067 s at 100 attack speed, and faster with more attack speed. Aura damage has no critical hits and does not push or stagger.

Chips

One chip per slot. Texts and values are in `Scripts/Runtime/Chips/ChipCatalog.cs`. The panel (Tab) shows one row per slot with chip and level. In the demo all chips are free for testing: in a real game, call `Equip` yourself.

CHIP	SLOT	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Dodge Body	Body	+5% dodge, -10% max HP	+10% dodge, -15% max HP	+20% dodge, -20% max HP	+35% dodge, -25% max HP
HP Boost	Body	+10% max HP	+15% max HP	+25% max HP	+40% max HP
Steel Body	Body	Attacks don't interrupt you. -0% damage taken	Attacks don't interrupt you. -10% damage taken	Attacks don't interrupt you. -15% damage taken	Attacks don't interrupt you. -20% damage taken
Berserker Body	Body	Below 25% HP: +25% damage. Above: +25% critical damage	Below 25% HP: +50% damage. Above: +50% critical damage	Below 25% HP: +100% damage. Above: +100% critical damage	Below 25% HP: +250% damage. Above: +250% critical damage
Damage Reduction	Body	-10% damage taken	-15% damage taken	-20% damage taken	-25% damage taken
Elemental Immunity	Body	Immune to burn, freeze, weakness and frailty	Immune to burn, freeze, weakness and frailty	Immune to burn, freeze, weakness and frailty	Immune to burn, freeze, weakness and frailty
Double Dash	Foot	Dash twice before the cooldown	Dash twice before the cooldown	Dash twice before the cooldown	Dash twice before the cooldown
Fire Dash	Foot	Dash leaves fire: burns for 5% damage per second. Costs 1 ammo	Dash leaves fire: burns for 10% damage per second. Costs 1 ammo	Dash leaves fire: burns for 15% damage per second. Costs 1 ammo	Dash leaves fire: burns for 30% damage per second. Costs 1 ammo
Ice Dash	Foot	Dash slows enemies for 4s, then freezes them for 1s. Costs 1 ammo	Dash slows enemies for 4s, then freezes them for 2s. Costs 1 ammo	Dash slows enemies for 4s, then freezes them for 3s. Costs 1 ammo	Dash slows enemies for 4s, then freezes them for 6s. Costs 1 ammo
Thunder Dash	Foot	Dash shocks for 5% damage and 10% to nearby enemies. Costs 1 ammo	Dash shocks for 10% damage and 15% to nearby enemies. Costs 1 ammo	Dash shocks for 15% damage and 30% to nearby enemies. Costs 1 ammo	Dash shocks for 30% damage and 60% to nearby enemies. Costs 1 ammo
Swiftness	Foot	+10% movement speed	+20% movement speed	+30% movement speed	+40% movement speed
EXP Boost	Head	+5% EXP	+10% EXP	+20% EXP	+30% EXP
Health Drop Boost	Head	+1% health drop chance	+2.5% health drop chance	+6% health drop chance	+12% health drop chance
Item Drop Boost	Head	+5% item drop chance	+8% item drop chance	+11% item drop chance	+15% item drop chance
Ammo Drop Boost	Head	+5% ammo drop chance	+10% ammo drop chance	+15% ammo drop chance	+25% ammo drop chance
Leech Core	Weapon core	Critical gun hits heal 50% of the damage. -50% gun critical damage	Critical gun hits heal 50% of the damage. -50% gun critical damage	Critical gun hits heal 50% of the damage. -50% gun critical damage	Critical gun hits heal 50% of the damage. -50% gun critical damage
Power Converter	Weapon core	+50% gun damage, -50% max ammo	+50% gun damage, -50% max ammo	+50% gun damage, -50% max ammo	+50% gun damage, -50% max ammo
Lead Rain	Weapon core	+50% max ammo, -50% gun damage	+50% max ammo, -50% gun damage	+50% max ammo, -50% gun damage	+50% max ammo, -50% gun damage

CHIP	SLOT	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Headshot Core	Weapon core	+10% headshot chance, -50% gun damage	+10% headshot chance, -50% gun damage	+10% headshot chance, -50% gun damage	+10% headshot chance, -50% gun damage
Ammo Core	Weapon core	+20 max ammo	+20 max ammo	+20 max ammo	+20 max ammo
Flaming Shot	Plasma	Shots burn enemies for 5% damage per second	Shots burn enemies for 15% damage per second	Shots burn enemies for 30% damage per second	Shots burn enemies for 40% damage per second
Freezing Shot	Plasma	Shots slow enemies by 5%	Shots slow enemies by 10%	Shots slow enemies by 20%	Shots slow enemies by 40%
Thunder Shot	Plasma	Shots chain 15% damage to enemies within 3m	Shots chain 25% damage to enemies within 3.5m	Shots chain 45% damage to enemies within 4.5m	Shots chain 80% damage to enemies within 6m
Power Shot	Plasma	+2 gun damage	+4 gun damage	+10 gun damage	+20 gun damage
Sharpshot	Plasma	+5% gun critical chance	+10% gun critical chance	+20% gun critical chance	+50% gun critical chance
Power Bomb	Aux damage	Shot enemies explode on death for 20% damage (4m)	Shot enemies explode on death for 25% damage (5m)	Shot enemies explode on death for 40% damage (6m)	Shot enemies explode on death for 50% damage (7m)
Alpha Bomb	Aux damage	Shot enemies explode on death applying weakness (4m)	Shot enemies explode on death applying weakness (5m)	Shot enemies explode on death applying weakness (6m)	Shot enemies explode on death applying weakness (7m)
Beta Bomb	Aux damage	Shot enemies explode on death applying +20% frailty (4m)	Shot enemies explode on death applying +30% frailty (5m)	Shot enemies explode on death applying +45% frailty (6m)	Shot enemies explode on death applying +60% frailty (7m)
Shotgun	Ammo controller	Gun fires 5 pellets	Gun fires 7 pellets	Gun fires 9 pellets	Gun fires 11 pellets
Machine Gun	Ammo controller	Hold to fire. Damage ramps up to x2.2. +55 max ammo	Hold to fire. Damage ramps up to x3.2. +65 max ammo	Hold to fire. Damage ramps up to x4.3. +85 max ammo	Hold to fire. Damage ramps up to x5.5. +110 max ammo
Enhancer	Ammo controller	+15 gun attack speed	+40 gun attack speed	+60 gun attack speed	+100 gun attack speed
Cursed Blade	Blade modifier	Sword kills heal 10% HP. -50% max HP	Sword kills heal 10% HP. -50% max HP	Sword kills heal 10% HP. -50% max HP	Sword kills heal 10% HP. -50% max HP
Berserker Blade	Blade modifier	+5% sword critical chance per consecutive hit (resets when hit)	+5% sword critical chance per consecutive hit (resets when hit)	+5% sword critical chance per consecutive hit (resets when hit)	+5% sword critical chance per consecutive hit (resets when hit)
Enhanced Blade	Blade modifier	+2 sword damage	+4 sword damage	+10 sword damage	+20 sword damage
Reflector Blade	Blade modifier	Sword reflects enemy bullets (25% of your damage)	Sword reflects enemy bullets (50% of your damage)	Sword reflects enemy bullets (100% of your damage)	Sword reflects enemy bullets (150% of your damage)
Charging Core	Sword core	Every 3 shots charge the sword (max 1 charges). Attack to release special slashes	Every 3 shots charge the sword (max 2 charges). Attack to release special slashes	Every 3 shots charge the sword (max 3 charges). Attack to release special slashes	Every 3 shots charge the sword (max 4 charges). Attack to release special slashes

Bombs

A shot marks its target. When a marked enemy dies, it explodes in the bomb radius (4, 5, 6 or 7 m). Power Bomb deals damage. Alpha Bomb applies weakness of 35, 50, 65 or 85%. Beta Bomb applies frailty.

Damage and teams

Whoever deals damage only knows `Damageable`, and whoever reacts listens to events. `Damageable.ApplyDamage` runs in this exact order:

1. Ignored if disabled, dead, invulnerable, or on the same team. Neutral is hurt by everyone.
2. Ignored during the invulnerability after a hit (`invulnerabilityAfterHit`, 0 on every kit prefab).
3. Ignored if the same melee weapon hit inside `repeatedMeleeHitWindow`. Only the hero uses it, with 0.5 s.
4. Dodge: `dodgeChance` is rolled, unless frozen. Frozen characters never dodge.
5. Shield: if there are charges, one is spent and the hit is blocked. Burn goes through shields.
6. Damage: reduction, then the elemental multiplier, then frailty.

7. Headshot: kills at once, or x 10 on a target with `isBoss`.
8. Limited to the current health. `immortal` never goes below 1 HP.
9. Health is removed and `HealthChanged` fires.
10. At 0 health: statuses clear and the death events fire.
11. Otherwise the damaged events fire.

Example

An enemy with 100 HP and no reduction takes a Fire hit of 30 and is Ice, with frailty x 1.25. 30 x 1.9 x 1.25 = 71.25, rounded to 71. It has 29 HP left.

Elements

ATTACK	AGAINST	DAMAGE
Fire	Ice	190%
Ice	Thunder	190%
Thunder	Fire	190%
Any	The same element	10%
Normal, or any other pair	Any	100%

Status effects

`StatusEffects` lives next to `Damageable` and works the same way on all characters. A status does not apply to dead, immune or invulnerable targets. During a dash, special or respawn, the hero is protected. The HUD shows the hero's active statuses with icon, text, time and a bar.

STATUS	EFFECT	REAPPLYING
Burn	Fire damage. 5 s means ticks at 1, 2, 3 and 4 s. Fire characters don't burn.	Renews the time and damage.
Freeze	Slows by 20% by default. After 4 s slowed, the target freezes solid for 2 s. Ice characters don't freeze.	Keeps the biggest slow and the longest time.
Weakness	Lowers damage dealt, by 50% by default, for 10 s.	Keeps the biggest reduction.
Frailty	Raises damage taken, +25% by default, for 10 s.	Keeps the biggest multiplier.

Frozen solid

Frozen solid means no movement and no animation. An ice shell covers every opaque mesh and crystals grow at the feet, scaled to the character. Then the ice breaks. New characters need no setup. Change the 4 seconds with `StatusEffects.freezeBuildUp`.

Elemental hits

`ElementalHit` turns the element of an enemy attack into a status, only when the hit deals damage: `burnFraction` 0.15, `freezeSlow` 0.2, `freezeDuration` 5, `freezeSolidTime` 2, `weaknessMultiplier` 0.5, `frailtyMultiplier` 1.25, `thunderChainFraction` 0.3 and `thunderChainRadius` 4.

Pushback and hit stop

The intensity of a hit is the distance in meters it pushes. Targets slide fast, at 20 m/s, and stop at walls and NavMesh borders. A sword hit starts the push after its hit stop, which gives the hit weight.

- **Enemies:** intensity x `EnemyAI.knockbackStrength`, up to 6 m, even during an attack. A killing hit also pushes the body.
- **Companions:** 1 m per point of intensity.

- **Hero:** intensity x 0.5, up to 5 m. Bullets, burns and auras don't push it.

ATTACK	INTENSITY
Hero combo	0.3, 0.8, 4
Hero specials	3, 1, 0.3, 6
Knight Drone	1
Chip bombs, boost explosions, chain lightning	1
Bullets, burns, auras	0
Robot Creep, Stinger	1, 3
Saw Bot, Jumper Bot	1, 8
Tesla Tower, Enemy Bomb, Enemy Goo	1

To make an enemy immovable: set `knockbackStrength` to 0, NavMeshAgent speed to 0 and movement to Stationary. Turrets and the Tesla Tower already work this way.

Hit stop freezes only the hero Animator (`Animator.speed`), never the game time. Menus use `Time.timeScale` .

Enemies

Every enemy has NavMeshAgent, Damageable, StatusEffects, Targetable, HealthBarTarget, LootDropper, EnemyAI and one EnemyBehaviour. They share one model, Basic Enemy Drone, with their own armor color. Drop them in `EnemySpawner.enemies` or in the scene: they need the NavMesh.

ENEMY	WORLD	HP	DAMAGE	ELEMENT	SPEED	BEHAVIOUR	EXP	SKILL EXP	HEALTH	AMMO
MiniBot	1	15	5	Normal	1.0	Shooter	5	6	8%	10%
Quad Drone	1	30	10	Normal	2.0	Shooter	7	6	1%	5%
Spider Drone	1	30	16	Normal	8.0	Shooter	5	6	1%	5%
Vdrone	1	30	10	Normal	2.0	Shooter	9	6	2%	5%
Saw Bot	1	45	55	Normal	5.0	Bouncer	65	23	1%	10%
Turret Basic Type 2	1	80	20	Normal	0.0	Shooter	14	11	1.1%	10%
Turret Basic	1	80	20	Normal	0.0	Shooter	13	11	1.1%	10%
Robot Creep	1	100	50	Normal	1.87	LungeMelee	130	21	2%	15%

ENEMY	WORLD	HP	DAMAGE	ELEMENT	SPEED	BEHAVIOUR	EXP	SKILL EXP	HEALTH	AMMO
Tesla Tower	1	100	40	Thunder	0.0	ShockTower	7	6	1%	10%
Frosty	1	120	30	Ice	2.0	Shooter	65	34	1%	4%
Jumper Bot	1	200	35	Fire	4.0	Jumper	145	50	2%	10%
Xeno Bot	2	120	25	Weakness	5.0	Shooter	170	10	1%	8%
Spider Drone Mk2	2	140	10	Normal	8.0	Shooter	60	4	0%	1%
V-Tracer	2	150	60	Weakness	4.0	Shooter	1300	16	0.5%	5%
Spammer Bot	2	185	40	Normal	2.0	Shooter	220	12	1%	5%
Stinger	2	200	125	Frailty	2.8	LungeMelee	1625	43	1%	10%
Blizzbot	2	230	80	Ice	3.0	Shooter	300	30	1%	8%
Spider Mother	2	260	40	Normal	10.0	Shooter	215	12	0.5%	10%
Bomber Bot	2	305	125	Fire	0.11	Shooter	300	28	1.2%	10%
B-Hover	2	350	85	Thunder	2.0	Shooter	4380	52	1%	8%
Gatling Drone	2	400	100	Normal	2.0	Shooter	4380	52	1%	8%

`EXP` and `Skill EXP` are the totals that enemy drops. Health and ammo are drop chances.

The 5 behaviours

- **ShooterBehaviour (16 enemies).** Moves, then stops and fires all its `EnemyGun`s at `shotTimes`. `movement`: Wander, Stationary, Pursue or Flee. Key fields: `attackInterval` plus `intervalRandom`, `attackDuration`, `randomWindup`, `attackFacing`.
- **LungeMeleeBehaviour (Robot Creep, Stinger).** Chases and attacks inside `attackDistance`, with a `MeleeHitbox`. `lungeDistance` moves it forward during the attack.
- **JumperBehaviour (Jumper Bot).** Jumps instead of walking. It can't be hit in the air, hurts on landing and fires 4 shots.
- **BouncerBehaviour (Saw Bot).** Moves in straight lines and bounces off NavMesh borders. `ContactDamage` hurts what it touches.
- **ShockTowerBehaviour (Tesla Tower).** Charges, shows the area on the ground and shocks everything within 4.32 m.

Training Dummy: immortal, 1000 HP, shows the damage per second and resets after 3 s.

Guns and projectiles

`EnemyGun` lives on child objects. `angles` fires one shot per angle, so a ring of guns or angles makes a radial pattern. `aim` is Forward or Target. `SimpleProjectile` flies straight or homing and can be reflected. `LobProjectile` throws bombs and goo in an arc and can leave a `HazardZone`. `HazardTrail` leaves zones behind a moving enemy. `SpawnOnDeath` releases minions.

Enemy waves

`EnemySpawner` starts a wave when no enemy is alive and none is spawning. It waits `delayBetweenWaves` (except for the first wave), then creates `min(maxAlive, 2 + wave)` enemies, one every `delayBetweenSpawns`, picked by `weight`.

FIELD	PREFAB VALUE	MEANING
`enemies`	11 entries, weight 1	Prefab and chance.
`spawnPoints`	Empty	Empty uses a ring around the spawner.
`ringRadius`	18	Radius of the ring.
`maxAlive`	7	Most enemies in a wave.
`delayBetweenSpawns`	0.6	Seconds.
`delayBetweenWaves`	3	Seconds.
`minDistanceToHero`	6	No spawn closer than this.
`spawnOnStart`	true	Starts by itself.

Important: the `Enemy Spawner` prefab only brings the 11 enemies of World 1. World 2 enemies are much stronger: add them when you balance your game. Use **Add To Spawner** in the wizard for your own enemies.

Companions

One active companion at a time (`CompanionSelector`). The three prefabs are examples. Make your own in the Companions tab.

COMPANION	ROLE	HEALTH	POWER	SPEED
Knight Drone	Protector	150 to 3000 HP	Damage 12 to 60 per hit	Attack speed 2.0 to 1.0 s
Ranged Drone	Attacker	64 to 1300 HP	Damage 5 to 40 per bullet	Attack speed 1.5 to 0.6 s
Healer Drone	Healer	64 to 1300 HP	Health reserve 40 to 1500 HP	Healing speed 3 to 60 HP/s

Each stat goes in a straight line from level 1 to level 10. Companion level is 1 + the levels gained. Upgrades are free: press **+** in the companion menu (C). Levels are kept while you switch companions. Set `CompanionSelectionPanel.showUpgrades` to false to hide the free buttons.

- **Follow:** wanders 2 to 2.5 m from the hero, and picks a new spot when farther than `maxDistanceFromHero`. Beyond `teleportDistance` (25 m) it teleports.
- **Knight:** chases enemies within `leashRange` (7 m) of the hero, and has a 50% chance to deflect each enemy bullet within 2.5 m.
- **Ranged:** shoots the closest enemy within `range`.
- **Healer:** heals the hero within `healRange` (3.5 m on the prefab) from a reserve. The hero's overheal refills the reserve. It also shoots, with 2 damage every 5 s, and that shot does not grow with the stats.
- **Aura ability:** `CompanionAuraAbility` pulses damage and status around it. No kit prefab uses it, and it is there for your own companions.

Pickups and loot

`LootDropper` rolls when a character dies.

```
health chance = healthDropChance + hero health drop bonus
ammo chance   = ammoDropChance + hero ammo drop bonus + hero item drop bonus
Ammo at zero: chance x 3. Ammo up to 5%: chance x 1.2. Capacity 0: no ammo drops.
EXP orbs = max(1, exp / 30 if exp >= 30, exp / 10 if exp >= 10, otherwise exp / 5), rounded down
```

PICKUP	HOW IT WORKS	VALUE
Health	Collected within 1.2 m, if the hero is hurt or the Healer has room.	25% of max HP
Ammo	Collected within 1.2 m, if the gun is not full.	3 to 23, shown on the pickup
EXP	After 0.6 s it flies to the hero. It always collects.	EXP and Skill EXP split among the orbs

Pickups last 30 s. Prefabs come from `PickupSettings` in the Combat Manager, unless the `LootDropper` has its own.

UI

The `Combat Manager` prefab has all the UI, in TextMesh Pro.

PART	WHAT IT SHOWS	WHERE
`HeroHUD`	Health, EXP, Skill EXP, level, ammo, boosts picked, charges, stats, dash cooldown.	`HUD > HeroHUD`
`StatusEffectBar`	Active statuses of the hero.	`HUD > HeroHUD > StatusEffects`
`CompanionHUD`	Card of the equipped companion. Hidden with no companion.	Combat Manager
`SkillSelectionPanel`	Boost cards. Pauses the game. Mouse, gamepad and keys.	Combat Manager
`ChipLoadoutPanel`	One row per slot.	`HUD > ChipPanel`
`CompanionSelectionPanel`	List and stats window.	Combat Manager
`ComboCounter`	"x23". Getting hurt or 5 s without a hit resets it.	Combat Manager
`DamagePopups`	Numbers, CRITICAL, HEADSHOT, MISS and BLOCK, colored by element.	Combat Manager
`HealthBarOverlay`	Bars over characters, set on each `HealthBarTarget`.	Combat Manager
`MobileControls`	Virtual stick and buttons.	Combat Manager

Change the look

Make a prefab copy of Combat Manager, then change colors, fonts and textures on the existing objects. Move or restyle objects, and don't delete them: scripts reference them. `DamagePopups`, `CompanionHUD` and `HealthBarOverlay` have color and font fields. `StatusEffectBar` and `CompanionHUD` build their UI at runtime.

Camera

`TopDownCamera` on the `Combat Camera` prefab keeps a fixed angle: `offset` (0, 45, -40), `pivotHeight` 1.17, `smoothTime` 0. An empty `target` finds the hero. `TopDownCamera.ShakeMain(duration, intensity)` shakes it, and the biggest shake wins. Gun shake values are on `HeroGun`.

The kit ships a fixed-angle top-down camera. Enemy and aim logic works on the ground plane, so test any other view in your game.

Mobile controls

`MobileControls` shows a virtual stick and buttons. **Mode:** Auto (shows on touch devices), AlwaysVisible or Hidden. They use the Input System on-screen controls, on the same paths as the gamepad.

For your own buttons, call `PressAttack()`, `PressShoot()` and `PressDash()` on `HeroInput`.

This combat system runs on phones in Cyberhero Legends, our Android game. Test controls and performance on your target devices too.

PART 4. ADAPT IT TO YOUR GAME

Recipes

Tool recipes need no code. **Code** recipes need a script: add `using UnityEngine;` and `using ZeukGames.CyberCombat;`.

1. Swap the hero model (Tool)

In the wizard, open **Hero**, drag your model and click **Create Hero**. In **Scene**, set **Hero Prefab** and click **Set Up Scene**. Test: press Play and attack. Weapons should stay in the hands.

2. Swap the sword and gun (Tool)

In **Hero**, drag models into **Sword** and **Gun**, and click **Flip** if one points backwards. Then **Create Hero**. Test: in Play Mode, attack and shoot.

3. Rebalance health, damage and speed (Tool)

Select your copy of `Data/Hero Stats Table.asset` and edit the arrays. Index 0 is level 1. Speeds use 100 = normal. Test: press F1 in the Editor and watch the stats line of the HUD. Create a copy with **Assets > Create > Zeuk Games > Cyber Combat Kit > Hero Stats Table** and assign it to `HeroStats.table` on your hero.

4. Sword only (Tool)

Set `HeroGun.baseAmmoCapacity` to 0 on your hero. The HUD shows `--`, the gun does not fire and ammo stops dropping. In your own Skill Database, turn off the gun boosts with **Offered**, because they are hidden automatically only after Super Charged Sword. Charging Core needs shots, so remove it from play. Hide the GUN button under `MobileControls`. Test: play a run.

5. Gun only (Code)

`canAttack` turns off the sword and the gun together, so don't use it. Remove the sword bindings in `HeroInput.Awake`, and hide the SWORD button. Test: the sword button does nothing, and the gun fires.

6. A new enemy in 2 minutes (Tool)

In **Enemies**, pick a base, set **Armor Color** and stats, click **Create Enemy**, then **Add To Spawner**. Test: press Play.

7. A boss (Code)

Set `Damageable.isBoss`: a headshot deals x 10 damage instead of killing, and the boss is not pushed or staggered. The kit has no boss bar. Use `HealthChanged` for yours:

```
using UnityEngine;
using UnityEngine.UI;
using ZeukGames.CyberCombat;

public class BossBar : MonoBehaviour
{
    public Damageable boss;
    public Image fill;

    void OnEnable() { boss.HealthChanged += OnHealth; }
    void OnDisable() { boss.HealthChanged -= OnHealth; }
    void OnHealth(int current, int max) { fill.fillAmount = (float)current / max; }
}
```

8. An enemy with its own behaviour (Code)

Put this on an enemy in place of its current behaviour. An enemy has one behaviour. `Tick` only runs while alive, not staggered and not frozen. Reset state in `OnRestart`, because enemies come from a pool.

```
using UnityEngine;
using ZeukGames.CyberCombat;

public class OrbitBehaviour : EnemyBehaviour
{
    public float radius = 5f;
    public float attackInterval = 3f;
    public EnemyGun gun;
    float timer;

    protected override void OnRestart() { timer = attackInterval; }

    public override void Tick(float dt)
    {
        Targetable target = ai.FindTarget();
        if (target == null) { StopMoving(); return; }
        Vector3 away = transform.position - target.transform.position;
        away.y = 0f;
        MoveTo(target.transform.position + Quaternion.Euler(0f, 40f, 0f) * away.normalized * radius);
        ai.Face(target.transform.position - transform.position);
        timer -= dt;
        if (timer <= 0f)
        {
            timer = attackInterval;
            ai.SetWindup(false);
            gun.Fire(target, ai.CurrentDamage, gameObject);
        }
    }
}
```

9. Your own companion (Tool, Code for a new ability)

In **Companions**, pick a base, set the menu fields and click **Create Companion**. For a new ability, derive from `CompanionAbility`:

```
using UnityEngine;
using ZeukGames.CyberCombat;

public class MyAbility : CompanionAbility
{
    public override void Tick()
    {
        if (!companion.CanAct) return;
        Targetable target = TargetRegistry.Closest(transform.position, Team.Hero, 10f);
        companion.CurrentTarget = target;
    }

    public override void OnCompanionDied() { }
}
```

10. Levels with set waves (Code)

Set `spawnOnStart` as you need, fill `spawnPoints`, and use `Wave` and `AliveCount` to end the level:

```
using UnityEngine;
using ZeukGames.CyberCombat;

public class LevelGoal : MonoBehaviour
{
    public EnemySpawner spawner;
    public int wavesToWin = 5;
    bool won;

    void Update()
    {
        if (won || spawner.Wave < wavesToWin || spawner.AliveCount > 0) return;
        won = true;
        spawner.SetActive(false);
        Debug.Log("Level complete");
    }
}
```

11. Save progress (Code)

The kit has no save system. Save `hero.Stats.level`, the picked boosts (`hero.Skills.PickedSkills`, restore with `Acquire`), the chips (`hero.Chips.Equipped`), `hero.Gun.Remaining` and `CompanionStats.Levels` of each companion. `stats.Changed` tells you when to save and `SetLevels` loads them.

Limits: `HeroProgression` has no setter for EXP or Skill EXP. Add a method if you want to restore those bars. Your own boosts appear as `SkillId.Custom`, without the key.

12. A shop and currency (Code)

Set `CompanionSelectionPanel.showUpgrades` to false, then charge for upgrades yourself:

```
using UnityEngine;
using ZeukGames.CyberCombat;

public class CompanionShop : MonoBehaviour
{
    public CompanionSelector selector;
    public int coins = 100;
    public int cost = 10;

    public void BuyPower()
    {
        var stats = selector.Current.GetComponent<CompanionStats>();
        if (stats.power.IsMax || coins < cost) return;
        coins -= cost;
        stats.Upgrade(stats.power);
    }
}
```

13. Give chips and boosts as rewards (Code)

```
using UnityEngine;
using ZeukGames.CyberCombat;

public class Reward : MonoBehaviour
{
    public void Give()
    {
        var hero = FindAnyObjectByType<HeroController>();
        hero.GetComponent<HeroProgression>().AddExp(100f, 50f);
        hero.Stats.SetLevel(10);
        hero.Skills.Acquire(SkillId.TripleShot);
        hero.Chips.Equip(ChipType.MachineGun, 3);
        hero.Gun.Refill();
        hero.Heal(50);
    }
}
```

14. Remove the boost pick (Tool)

In your own Skill Database, set `baseSkillLimit` to 0. The skill bar stops and the HUD shows MAX. Keep `optionsPerLevelUp` for later. Exp Gain Boost raises the limit, so turn it off too, or use your own way of giving boosts with `Acquire`.

15. Change the keys (Code)

The bindings are in `HeroInput.Awake`. Edit them there. Panel and debug shortcuts (Tab, C, F1 to F4) are in `CombatManager`, and E is `EnemyTestPanel.toggleKey`.

16. Change the UI look (Tool)

See UI. Restyle a copy of `Combat Manager` without deleting objects. Test: press Play, then open every menu.

17. Change the camera (Tool)

Change `TopDownCamera.offset` on your Combat Camera. Test aiming, enemy behaviour and the frozen crystals: their placement assumes the default camera.

18. Use it without the Combat Manager (Code)

Without it, you need your own HUD and you call `Revive` yourself:

```
using System.Collections;
using UnityEngine;
using ZeukGames.CyberCombat;

public class SimpleRespawn : MonoBehaviour
{
    public HeroController hero;
    public Transform spawnPoint;

    void OnEnable() { hero.Died += OnDied; }
    void OnDisable() { hero.Died -= OnDied; }
    void OnDied() { StartCoroutine(RespawnAfter(3f)); }

    IEnumerator RespawnAfter(float seconds)
    {
        yield return new WaitForSeconds(seconds);
        hero.Revive(spawnPoint.position);
    }
}
```

19. Your own sound on a new object (Tool)

Add an AudioSource and `RandomAudio`, pick the **Sound**, or fill **Clips**. Call `PlayRandom()` from your script. For a one-shot with no component, call `SoundLibrary.PlayAt(SoundId.Dash, position)`.

20. Win, lose and main menu screens (Code)

Listen to `hero.Died` for defeat, and `CombatEvents.Killed` or `EnemySpawner.WaveStarted` for your goals, then show your own panel.

```
using UnityEngine;
using ZeukGames.CyberCombat;

public class GameScreens : MonoBehaviour
{
    public HeroController hero;
    public GameObject defeatPanel;
    public GameObject victoryPanel;
    public int killsToWin = 50;
    int kills;

    void OnEnable() { hero.Died += OnDefeat; CombatEvents.Killed += OnKilled; }
    void OnDisable() { hero.Died -= OnDefeat; CombatEvents.Killed -= OnKilled; }

    void OnDefeat() { defeatPanel.SetActive(true); }

    void OnKilled(Damageable target, DamageInfo info)
    {
        if (target.team != Team.Enemy) return;
        kills++;
        if (kills >= killsToWin) victoryPanel.SetActive(true);
    }
}
```

The Combat Manager respawns the hero by itself. Remove that behaviour if your game ends on death.

21. Before you publish (Tool)

Untick `Debug Tools` on `CombatManager` if you also want the shortcuts off in development builds: release builds never run them. The enemy test panel exists only in the demo scene, so leave that scene out of your build. Fill the Sound Library, and run **Check Setup**.

22. Port to mobile (Tool)

The kit includes touch controls in Auto mode. Build to your device and test the controls, quality settings and frame rate. No performance numbers are promised, because they depend on your game and device.

PART 5. FOR PROGRAMMERS

Architecture

Whoever deals damage only knows `Damageable`, and whoever reacts listens to events. So UI, loot, chips and combo don't depend on each other.

LAYER	CONTENTS
Core	`DamageInfo`, `Damageable`, `StatusEffects`, `CombatEvents`, `TargetRegistry`, `Targetable`, `PrefabPool`, `VfxPool`, `NavKnockback`, `TopDownCamera`
Weapons	`MeleeHitbox`, `SlashEffect`, `SimpleProjectile`, `HeroProjectile`, `LobProjectile`
Characters	`HeroController` and hero components, `EnemyAI` + `EnemyBehaviour`, `CompanionController` + `CompanionAbility`
Progression	`HeroStats`, `HeroSkills`, `HeroChips`, `BoostEffect`, `HeroProgression`, `CompanionStats`
Data	`SkillDatabase`, `HeroStatsTable`, `ChipLibrary`, `ChipDefinition`, `SoundLibrary`
UI	Only reads state and listens to events

Assemblies: `ZeukGames.CyberCombat.Runtime`, `ZeukGames.CyberCombat.Editor`, `ZeukGames.CyberCombat.Installer`, `ZeukGames.DynamoBone`. **Namespaces:** `ZeukGames.CyberCombat`, `ZeukGames.CyberCombat.Editor`, `ZeukGames.CyberCombat.Installer`, `ZeukGames`.

Layers: hero and companions on 9, enemies on 23, projectiles on 14 and pickups on 28. Damage ignores layers: `Damageable.team` decides. Layers serve collision and the dash.

`IStatContributor` is implemented by `HeroSkills` and `HeroChips`. Statics reset themselves on entering Play Mode, so you can turn off Reload Domain.

Events

Global, in `CombatEvents`

EVENT	SIGNATURE
`DamageApplied`	`(Damageable target, DamageInfo info, int amount, DamageResult result)`, for Dodged, Blocked, Damaged and Killed
`Killed`	`(Damageable target, DamageInfo info)`
`Healed`	`(Damageable target, int amount)`

Per object

CLASS	EVENTS
`Damageable`	`Damaged`, `Died`, `Dodged`, `Blocked`, `HealedEvent`, `HealthChanged`, and UnityEvents `onDamaged`, `onDeath`
`HeroController`	`Died`, `Revived`, `Overhealed`, `DashCooldownStarted`
`HeroStats`	`StatsChanged`
`HeroGun`	`AmmoChanged`, `BulletsFired`
`HeroChips`	`ChipsChanged`
`HeroSkills`	`SkillAcquired`, `SkillsReset`
`HeroProgression`	`ExpChanged`, `LeveledUp`, `SkillExpChanged`, `SkillPickAvailable`
`CompanionStats`	`Changed`
`CompanionSelector`	`CompanionChanged`
`EnemyAI`	`Died`
`EnemySpawner`	`WaveStarted`
`CompanionController`	`Died`, `Restored`

Listen to the fight

```
using UnityEngine;
using ZeukGames.CyberCombat;

public class CombatListener : MonoBehaviour
{
    void OnEnable() { CombatEvents.DamageApplied += OnDamage; CombatEvents.Killed += OnKilled; }
    void OnDisable() { CombatEvents.DamageApplied -= OnDamage; CombatEvents.Killed -= OnKilled; }

    void OnDamage(Damageable target, DamageInfo info, int amount, DamageResult result)
    {
        Debug.Log(target.name + " took " + amount + " (" + result + ")");
    }

    void OnKilled(Damageable target, DamageInfo info)
    {
        Debug.Log(target.name + " died");
    }
}
```

Deal damage from your script

```
using UnityEngine;
using ZeukGames.CyberCombat;

public class SpikeTrap : MonoBehaviour
{
    public int damage = 25;

    public void Hit(Damageable target)
    {
        var info = DamageInfo.Create(damage, Team.Enemy, this, gameObject, transform.position,
            DamageKind.Melee, Element.Fire, 1f);
        DamageResult result = target.ApplyDamage(info);
        if (ElementalHit.Landed(result)) Debug.Log("Hit landed");
    }
}
```

API

Public members of the runtime, by file.

▼ **Audio**

`RandomAudio : MonoBehaviour` `Audio/RandomAudio.cs`

Plays a sound of the Sound Library (or its own clips, if any), with optional pitch randomization.

- `void PlayRandom()`
- `void PlayRandom(float pitchBoost)`
- `void PlayAt(Vector3 position)`
- `void Stop()`
- `void StopImmediately()`

`SoundLibrary : ScriptableObject` `Audio/SoundLibrary.cs`

The sounds of the kit in one place: drop your clips in each entry and every prefab that uses it plays them. A RandomAudio with its own clips ignores the library (per prefab override). Lives in a Resources folder, so it is found without any setup.

`Entry` `Audio/SoundLibrary.cs`

- `Entry Find(SoundId id)`
- `static AudioClip Pick(SoundId id, out float volume)`

▼ Boosts

`BoostEffect` Boosts/BoostEffect.cs

One effect of a custom boost or chip, with a value per level.

- `float Value(int level)`
- `static bool IsInstant(BoostEffectType t)`
- `static bool IsOnHit(BoostEffectType t)`
- `static bool IsOnKill(BoostEffectType t)`
- `static bool UsesChance(BoostEffectType t)`
- `static bool UsesSource(BoostEffectType t)`
- `static bool UsesDuration(BoostEffectType t)`
- `static bool UsesVfx(BoostEffectType t)`
- `static bool HasValue(BoostEffectType t)`
- `static string ValueLabel(BoostEffectType t)`
- `string Describe(int level)`
- `static string Describe(IList<BoostEffect> effects, int level)`
- `void Contribute(StatModifiers m, float healthLostPercent, int level)`

`BoostEffectRunner` Boosts/BoostEffectRunner.cs

Runs the data driven effects of the hero (custom boosts and chips): on hit, on kill and over time. Attribute effects go through HeroSkills / HeroChips (IStatContributor). Owned by HeroSkills.

- `BoostEffectRunner(HeroSkills skills)`
- `void Enable()`
- `void Disable()`
- `void Tick(float dt)`
- `void ApplyInstant(IList<BoostEffect> effects, int level)`
- `int BonusAmmo()`

▼ Chips

`ChipCatalog` Chips/ChipCatalog.cs

Slot, display texts and per-level values (1..4) of every chip.

- `static ChipSlot SlotOf(ChipType type)`
- `static string DisplayName(ChipType type)`
- `static string Description(ChipType type, int level)`
- `static float DodgeBonus(int l)`
- `static float DodgeHpPenalty(int l)`
- `static float HpBoost(int l)`
- `static float SteelBodyReduction(int l)`
- `static float BerserkerBonus(int l)`
- `static float DamageReduction(int l)`
- `static float FireDashBurn(int l)`
- `static float IceDashDuration(int l)`
- `static float ThunderDashDamage(int l)`
- `static float ThunderDashChain(int l)`
- `static float SwiftnessBonus(int l)`
- `static float ExpDropBoost(int l)`
- `static float HealthDropBoost(int l)`
- `static float ItemDropBoost(int l)`
- `static float AmmoDropBoost(int l)`
- `static float FlamingBurn(int l)`
- `static float FreezingSlow(int l)`
- `static float ThunderShotDamage(int l)`
- `static float ThunderShotRange(int l)`
- `static int PowerShotDamage(int l)`
- `static float SharpshotCrit(int l)`

- `static float BombRadius(int l)`
- `static float PowerBombDamage(int l)`
- `static float AlphaBombWeakness(int l)`
- `static float BetaBombFrailty(int l)`
- `static int ShotgunPellets(int l)`
- `static float MachineGunRamp1(int l)`
- `static float MachineGunRamp2(int l)`
- `static int MachineGunAmmo(int l)`
- `static float EnhancerAttackSpeed(int l)`
- `static int EnhancedBladeDamage(int l)`
- `static float ReflectorDamage(int l)`

`ChipDefinition : ScriptableObject` `Chips/ChipDefinition.cs`

A chip made with data (Tools > Zeuk Games > Cyber Combat Kit > Boost and Chip Creator): slot, texts and effects per level. Listed in the Chip Library, it shows up in the chips panel next to the default chips.

- `string Description(int level)`

`DefaultChip` `Chips/ChipLibrary.cs`

Settings of a default chip (its effect stays in code): name, icon, if it is offered, extra data effects.

`ChipLibrary : ScriptableObject` `Chips/ChipLibrary.cs`

The chips of the game: settings of the default chips and your own chips. Lives in a Resources folder, so it is found without setup. Your copy (Project Library) wins over the kit one.

- `DefaultChip Default(ChipType type)`
- `static IEnumerable<ChipDefinition> InSlot(ChipSlot slot)`
- `static bool IsEnabled(ChipType type)`
- `static string NameOf(ChipType type)`
- `static Sprite IconOf(ChipType type)`
- `static List<BoostEffect> ExtraEffects(ChipType type)`
- `static string DescriptionOf(ChipType type, int level)`

`EquippedChip` `Chips/HeroChips.cs`

`HeroChips : MonoBehaviour, IStatContributor` `Chips/HeroChips.cs`

Equipment of the hero: one chip per slot. Passive bonuses are applied through IStatContributor, weapon behaviours are read by HeroGun, HeroMelee and HeroController. Also handles the Aux Damage bombs (enemies shot explode when they die).

- `EquippedChip(ChipType type, int level)`
- `EquippedChip(ChipDefinition custom, int level)`
- `void Equip(ChipType type, int level)`
- `void Equip(ChipDefinition chip, int level)`
- `bool Has(ChipDefinition chip)`
- `void CollectEffects(List<(BoostEffect, int)`
- `void Unequip(ChipSlot slot)`
- `void UnequipAll()`
- `EquippedChip Get(ChipSlot slot)`
- `bool Has(ChipType type)`
- `int LevelOf(ChipType type)`
- `void Contribute(StatModifiers m, float healthLostPercent)`
- `float LowHealthDamageMultiplier(float healthRatio)`
- `float HighHealthCritMultiplier(float healthRatio)`
- `void MarkForBomb(Damageable target)`
- `event Action ChipsChanged`

▼ **Companions**

`CompanionAbility : MonoBehaviour` `Companions/CompanionAbility.cs`

Base class of the companion abilities. Ticked by the CompanionController while it can act.

- `abstract void Tick()`
- `virtual void OnCompanionDied()`

`CompanionAnimationEvents : MonoBehaviour` `Companions/CompanionAnimationEvents.cs`

Receives the animation events baked in the companion clips (put it next to the companion Animator). Attacks are timed by the abilities, so only the footstep event does something.

- `void PlayStep()`
- `void AttackBegin()`
- `void AttackEnd()`
- `void EndAttack()`
- `void ExclamationAttack()`

`CompanionAuraAbility : CompanionAbility` `Companions/CompanionAuraAbility.cs`

Elemental companion: periodically damages enemies around it and applies its element.

- `override void Tick()`

`CompanionController : MonoBehaviour` `Companions/CompanionController.cs`

Companion that follows the hero on the NavMesh, wanders close to it and runs its abilities (melee, ranged, healer, aura). Uses the same Damageable/StatusEffects as everybody else. Optional animator parameters: IsMoving (bool), Attack, Hit, Dodge, Deflect, Death (triggers).

- `bool HasParam(int hash)`
- `void Trigger(int hash)`
- `void Trigger(string name)`
- `void FaceTowards(Vector3 point)`
- `void Warp(Vector3 position)`
- `void Restore()`
- `void Heal(int amount)`
- `event Action<CompanionController> Died`
- `event Action<CompanionController> Restored`

`CompanionHealerAbility : CompanionAbility` `Companions/CompanionHealerAbility.cs`

Heals the hero with a beam while the hero is hurt and close, spending a health reserve. Overheal from the hero (pickups, skills) refills the reserve.

- `void Refill(int amount)`
- `override void Tick()`
- `override void OnCompanionDied()`
- `event Action<float, int> ReserveChanged`

`CompanionMeleeAbility : CompanionAbility` `Companions/CompanionMeleeAbility.cs`

Knight style companion: chases enemies close to the hero, slashes them and has a chance to deflect enemy bullets flying near it.

- `override void Tick()`
- `override void OnCompanionDied()`

`CompanionRangedAbility : CompanionAbility` `Companions/CompanionRangedAbility.cs`

Shoots the closest enemy every attackInterval seconds (alternating muzzles).

- `override void Tick()`
- `override void OnCompanionDied()`

`CompanionSelector : MonoBehaviour` `Companions/CompanionSelector.cs`

Keeps a single active companion for the hero. Selecting another one removes the current companion and spawns the new one next to the hero, which it then follows like any companion.

- `int LevelOf(int index)`
- `void Select(int index)`
- `void SelectNone()`
- `event Action<CompanionController> CompanionChanged`

`CompanionStat` `Companions/CompanionStats.cs`

One upgradable stat: its value goes in a straight line from level 1 to the max level.

`CompanionStats : MonoBehaviour` `Companions/CompanionStats.cs`

Health, power and speed of a companion, each from level 1 to 10 (companion level = 1 + the levels gained). Upgrades are free: call Upgrade, or use the + buttons of the companion menu. The CompanionSelector keeps the levels of each companion while you switch between them.

- `float ValueAt(int atLevel)`
- `string Format(float value)`
- `bool Upgrade(CompanionStat stat)`
- `void SetLevels(Vector3Int levels)`
- `void Apply(bool refillHealth)`
- `event Action Changed`

▼ **Core**

`CombatEvents` `Core/CombatEvents.cs`

Global combat notifications. UI (popups, combo counter) and systems (loot, chips) listen here so damage dealers and damageables don't need to know about each other.

`DamageInfo` `Core/DamageInfo.cs`

Everything a damageable needs to know about an incoming hit.

`Damageable : MonoBehaviour` `Core/Damageable.cs`

Health component used by the hero, enemies and companions. Handles teams, dodge, shield charges, damage reduction, elemental resistances and headshots.

- `void ResetHealth()`
- `void SetMaxHealth(int value, bool addDifferenceToCurrent)`
- `void SetHealth(int value)`
- `int Heal(int amount)`
- `bool CanBeDamagedBy(Team attacker)`
- `DamageResult ApplyDamage(DamageInfo info)`
- `static float ElementalMultiplier(Element attack, Element defender)`
- `event Action<DamageInfo, int> Damaged`
- `event Action<DamageInfo> Died`
- `event Action<DamageInfo> Dodged`
- `event Action<DamageInfo> Blocked`
- `event Action<int> HealedEvent`
- `event Action<int, int> HealthChanged`

`LightningBolt : MonoBehaviour` `Core/LightningBolt.cs`

Jagged line between two points, re-randomized a few times per second. Spawn it through VfxPool.

`LightningStrike` `Core/LightningBolt.cs`

Chain lightning helper: damages every hostile target near a point and draws bolts to them.

- `void Strike(Vector3 from, Vector3 to)`
- `void Strike(Transform from, Transform to)`

`NavKnockback` `Core/NavKnockback.cs`

Push of a hit on a NavMesh character (enemies, companions): the hit intensity is the distance in meters. The character slides there fast, after the hit stop of a hero sword hit, and stops at walls and NavMesh borders.

- `void Update(NavMeshAgent agent, float deltaTime)`
- `void Stop()`

`PooledInstance : MonoBehaviour` `Core/PrefabPool.cs`

Remembers which prefab an instance came from so it can go back to the right pool.

`PrefabPool` `Core/PrefabPool.cs`

Global prefab pool (projectiles, pickups, enemies).

- `static T Get<T>(T prefab, Vector3 position, Quaternion rotation)`
- `static GameObject Get(GameObject prefab, Vector3 position, Quaternion rotation)`
- `static void Release(GameObject instance)`

`StatusEffects : MonoBehaviour` `Core/StatusEffects.cs`

Burn, Freeze, Weakness and Frailty. Lives next to a Damageable. Movement scripts read SpeedMultiplier / IsFrozen, damage dealers read OutgoingDamageMultiplier and the Damageable reads IncomingDamageMultiplier.

- `void ClearAll()`
- `event Action<bool> FrozenChanged`

`TargetRegistry` `Core/TargetRegistry.cs`

Keeps track of every living Targetable so aim assist doesn't need physics queries.

- `static bool AnyHostile(Team attackerTeam)`

`Targetable : MonoBehaviour` `Core/Targetable.cs`

Marks an object as a valid target for auto aim (hero gun, companions, chain lightning…). Registered in the TargetRegistry while enabled. Dead targets stay registered but are skipped (IsValid), so a character that is revived without being disabled (the hero after a respawn) is a target again.

`TopDownCamera : MonoBehaviour` `Core/TopDownCamera.cs`

Fixed angle follow camera with screen shake. Movement input is relative to the world, not the camera.

- `static void ShakeMain(float duration, float intensity)`
- `void Shake(float duration, float intensity)`
- `void SnapToTarget()`

`VfxPool : MonoBehaviour` `Core/VfxPool.cs`

Pools short lived effect prefabs (hit sparks, explosions, lightning bolts). Instances are recycled automatically after their lifetime.

`Active` `Core/VfxPool.cs`

▼ Enemies

`BasicEnemyDronePower : MonoBehaviour` `Enemies/BasicEnemyDronePower.cs`

Glow of the Basic Enemy Drone: 1 = awake, 0 = off (animated by its Idle and Death clips).

`BouncerBehaviour : EnemyBehaviour` `Enemies/BouncerBehaviour.cs`

Moves in straight lines and bounces off the edges of the arena (NavMesh borders), hurting what it touches.

- `override void Tick(float dt)`

`ContactDamage : MonoBehaviour` `Enemies/ContactDamage.cs`

Hurts hostile targets that touch this enemy (saw, landing jumper). One hit per cooldown.

`ElementalHit` `Enemies/ElementalHit.cs`

Status effect applied by an elemental enemy attack when it deals damage: Fire burns, Ice slows (and freezes if it lasts), Weakness lowers the damage dealt, Frailty raises the damage taken and Thunder chains to the allies close to the target.

- `void Apply(Damageable target, Element element, int damage, Team team, GameObject instigator, UnityEngine.Object source)`
- `static bool Landed(DamageResult result)`

`EnemyAI : MonoBehaviour` `Enemies/EnemyAI.cs`

Enemy brain: chases the closest hero-team target (hero or companion) and attacks in melee or with projectiles. Reacts to hits (stagger + knockback), freeze/slow and dies. An EnemyBehaviour on the same object replaces the chase/attack logic (wandering shooters, turrets, jumpers…). Optional animator parameters: Speed (float), Attack, Hit, Death (triggers).

- `void SetTrigger(string parameter)`
- `void Spawn(Vector3 position)`
- `void Face(Vector3 direction)`
- `void Face(Transform part, Vector3 direction)`
- `Targetable FindTarget()`
- `void SetWindup(bool active)`
- `void PulseVisual(float progress)`
- `void PlayAttackAudio()`
- `event Action<EnemyAI> Died`

`EnemyBehaviour : MonoBehaviour` `Enemies/EnemyBehaviour.cs`

Replaces the default chase/attack logic of EnemyAI. EnemyAI keeps health, status effects, knockback, death and pooling, and calls Tick every frame while the enemy is alive and not staggered.

- `void Restart()`
- `abstract void Tick(float deltaTime)`
- `virtual void OnDamaged(DamageInfo info)`
- `virtual void OnDied(DamageInfo info)`

`EnemyGun : MonoBehaviour` `Enemies/EnemyGun.cs`

A muzzle of an enemy. Fires a straight (or homing) projectile or a lobbed one, along its forward direction or at the target. Behaviours fire all their guns at once, so a ring of guns makes a radial pattern.

- `void Fire(Targetable target, int damage, GameObject owner)`

`EnemySpawner : MonoBehaviour` `Enemies/EnemySpawner.cs`

Keeps a number of enemies alive around the arena, in waves. Enemies are pooled.

`Entry` `Enemies/EnemySpawner.cs`

- `void SetActive(bool value)`

- `EnemyAI SpawnOne()`
- `event Action<int> WaveStarted`

`HazardTrail : MonoBehaviour` `Enemies/HazardTrail.cs`

Leaves hazard zones on the ground behind a moving enemy (acid trail).

`HazardZone : MonoBehaviour` `Enemies/HazardZone.cs`

Area on the ground (fire field, acid) that hurts hostile targets standing in it for a while. Spawned from the pool by bombs and trails.

- `static HazardZone Spawn(HazardZone prefab, Vector3 position, Team team, int sourceDamage, GameObject owner)`

`JumperBehaviour : EnemyBehaviour` `Enemies/JumperBehaviour.cs`

Jumps from point to point in a high arc. Can't be hit in the air, hurts what it lands on and fires all its guns when it lands.

- `override void Tick(float dt)`
- `override void OnDied(DamageInfo info)`

`LungeMeleeBehaviour : EnemyBehaviour` `Enemies/LungeMeleeBehaviour.cs`

Melee enemy: walks to the target and, inside attackDistance, attacks with a MeleeHitbox. The attack can push the enemy forward (lunge).

- `override void Tick(float dt)`
- `override void OnDied(DamageInfo info)`

`ShockTowerBehaviour : EnemyBehaviour` `Enemies/ShockTowerBehaviour.cs`

Stationary tower: charges for a few seconds, shows the area on the ground and then shocks every hostile target inside the radius.

- `override void Tick(float dt)`
- `override void OnDied(DamageInfo info)`

`ShooterBehaviour : EnemyBehaviour` `Enemies/ShooterBehaviour.cs`

Enemy that moves (wanders, holds a position, walks to the target or runs away) and every few seconds stops to attack: it plays a telegraph and fires all its EnemyGuns at the shot times of the attack.

- `override void Tick(float dt)`
- `override void OnDamaged(DamageInfo info)`
- `override void OnDied(DamageInfo info)`

`SpawnOnDeath : MonoBehaviour` `Enemies/SpawnOnDeath.cs`

Spawns smaller enemies around this one when it dies (Spider Mother).

`TrainingDummy : MonoBehaviour` `Enemies/TrainingDummy.cs`

Target that never dies: heals back after a few seconds without damage and shows the DPS.

▼ Hero

`HeroController : MonoBehaviour` `Hero/HeroController.cs`

Top-down hero: root motion movement, dash (double/elemental dash chips), sword and gun input, auto aim, attack lunge, hit stop, knockback, death and respawn. Works with the Hero Combat animator controller. Animation events used by the clips: EquipSword, VisualEquipSword, MeleeAttackStart, MeleeAttackEnd, SpecialAttackStart, Shoot, MakeInvulnerable, MakeVulnerable.

- `void SetCurveOverride(int hash, float value)`
- `void SetInPlaceSpeed(float metersPerSecond)`

- `void OnAnimationEvent(HeroAnimationEvent action)`
- `bool IsShootState()`
- `bool IsDashState()`
- `void FaceTowards(Vector3 point)`
- `void SetInvulnerable(InvulnerabilitySource source, bool value)`
- `void AddForce(Vector3 force, float duration)`
- `void HitStop(float intensity)`
- `float HitStopDuration(float intensity)`
- `void Heal(int amount)`
- `void HealPercent(float percent)`
- `void ReleaseControl()`
- `void GainControl()`
- `void OnDashStart()`
- `void OnDashUpdate()`
- `void OnDashEnd()`
- `void ResetAttack()`
- `void OnHurtStateEnter()`
- `void OnSpecialRecover()`
- `void FreeAttackDirection()`
- `void LockAttackDirection()`
- `void EquipSword()`
- `void VisualEquipSword()`
- `void MeleeAttackEnd()`
- `void SpecialAttackStart()`
- `void Shoot()`
- `void MakeInvulnerable()`
- `void MakeVulnerable()`
- `event Action Died`
- `event Action Revived`
- `event Action<float> DashCooldownStarted`
- `event Action<int> Overhealed`

`HeroGun : MonoBehaviour` `Hero/HeroGun.cs`

Hero gun: ammo, firing patterns (normal, shotgun, machine gun, triple shot, multi shot) and hit resolution of every bullet (critical, headshot, plasma elements, ricochet, pierce, split...). Bullets are fired by the "Shoot" animation event through HeroController.

- `void RecalculateCapacity()`
- `void Refill()`
- `void AddAmmo(int amount)`
- `void EmptyAmmo()`
- `Targetable FindTarget()`
- `bool Fire()`
- `bool CanBounce(HeroProjectile p)`
- `bool ResolveHit(HeroProjectile p, Damageable target, Vector3 point, out bool headshot)`
- `event Action<int, int> AmmoChanged`
- `event Action<int> BulletsFired`

`HeroInput : MonoBehaviour` `Hero/HeroInput.cs`

- `void ReleaseControl()`
- `void GainControl()`
- `void ClearBuffered()`
- `void PressAttack()`
- `void PressShoot()`
- `void PressDash()`
- `event System.Action PausePressed`

`HeroMelee : MonoBehaviour` `Hero/HeroMelee.cs`

Sword combat: 3 hit combo, charged special attacks (Charging Core chip), blade modifier chips, hit stop and camera shake. Driven by the animator (state behaviours + animation events).

- `void OnOwnerDamaged()`

- `void BeginComboStep(int slashIndex, float intensity, float multiplier)`
- `void ActivateComboSlash(int slashIndex)`
- `void EndComboStep(int slashIndex)`
- `void BeginSpecial(int specialIndex, float intensity, float multiplier)`
- `void ActivateSpecial(int specialIndex, int vfxIndex)`
- `void EndSpecial(int specialIndex)`
- `void SwingStart()`
- `void SwingEnd()`
- `void SpecialStart()`
- `void ShowSwordInHand(bool inHand)`
- `void DeactivateAllEffects()`
- `void ResetCharges()`

`HeroProgression : MonoBehaviour` `Hero/HeroProgression.cs`

Two progressions: - EXP: raises the hero level (base attributes from HeroStatsTable). - Skill EXP: every threshold reached grants a skill pick (shown by the SkillSelectionPanel), up to the skill limit of the run.

- `void AddExp(float amount, float skillAmount)`
- `void PickSkill(SkillId id)`
- `void PickSkill(SkillDefinition def)`
- `void SkipSkillPick()`
- `void ResetRun()`
- `event Action<float, float> ExpChanged`
- `event Action<int> LeveledUp`
- `event Action<float, float, float> SkillExpChanged`
- `event Action<int> SkillPickAvailable`

`HeroStats : MonoBehaviour` `Hero/HeroStats.cs`

Final hero attributes = per-level base values (HeroStatsTable) modified by skills and chips. Also rolls damage (critical hits) for every hero attack.

- `int FractionOfDamage(float fraction)`
- `void SetLevel(int newLevel)`
- `event Action StatsChanged`

`HeroStatsDefaults` `Hero/HeroStatsDefaults.cs`

Default per-level values.

`HeroStatsTable : ScriptableObject` `Hero/HeroStatsTable.cs`

Per-level base attributes and EXP curves. Index 0 = level 1. Create with Assets > Create > Zeuk Games > Cyber Combat Kit > Hero Stats Table (filled with the default values).

- `int MaxHealthAt(int level)`
- `int SpeedAt(int level)`
- `int AttackSpeedAt(int level)`
- `int DamageAt(int level)`
- `int CritChanceAt(int level)`
- `int CritDamageAt(int level)`
- `float ExpToNextLevel(int level)`
- `float SkillExpThreshold(int skillsPicked)`

`StatModifiers` `Hero/StatModifiers.cs`

Bag of modifiers filled by skills and chips every time the hero stats are recalculated. Multipliers start at 1, additive values start at 0.

`IStatContributor` `Hero/StatModifiers.cs`

Implemented by systems that change hero attributes (skills, chips).

- `void Reset()`

`HeroAnimationTiming : HeroStateBehaviour` `Hero/StateMachine/HeroAnimationTiming.cs`

Timing of a hero state whose clip has no events or curves of its own: fires the combat events at normalized times, gives the movement curves and moves clips made in place. Written by the Hero Animations window.

`TimedEvent` `Hero/StateMachine/HeroAnimationTiming.cs`

- `override void OnStateEnter(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateUpdate(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`

`HeroComboAttackSMB : HeroStateBehaviour` `Hero/StateMachine/HeroComboAttackSMB.cs`

One step of the sword combo: sets damage values and shows the slash at effectStartTime.

- `override void OnStateEnter(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateUpdate(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateExit(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`

`HeroDashSMB : HeroStateBehaviour` `Hero/StateMachine/HeroDashSMB.cs`

Dash state: invulnerability, passing through enemies and elemental dash chips.

- `override void OnStateEnter(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateUpdate(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateExit(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`

`HeroHurtSMB : HeroStateBehaviour` `Hero/StateMachine/HeroHurtSMB.cs`

Hurt state: gives a short armor window so consecutive hits don't lock the hero in the hurt animation.

- `override void OnStateEnter(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`

`HeroInvulnerableSMB : HeroStateBehaviour` `Hero/StateMachine/HeroInvulnerableSMB.cs`

The hero can't be damaged while in this state (dodge, death).

- `override void OnStateEnter(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateExit(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`

`HeroRecoverSMB : HeroStateBehaviour` `Hero/StateMachine/HeroRecoverSMB.cs`

End of the special attack chain: removes the special/dash protection.

- `override void OnStateEnter(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`

`HeroResetAttackSMB : HeroStateBehaviour` `Hero/StateMachine/HeroResetAttackSMB.cs`

Clears pending attack / dash / shoot requests when the state starts (and optionally ends).

- `override void OnStateEnter(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateExit(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`

`HeroSpawnSMB : HeroStateBehaviour` `Hero/StateMachine/HeroSpawnSMB.cs`

Respawn state: the hero is protected until the animation ends.

- `override void OnStateEnter(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateExit(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`

`HeroSpecialAttackSMB : HeroStateBehaviour` `Hero/StateMachine/HeroSpecialAttackSMB.cs`

Charged special attack (Charging Core chip). Consumes a charge and activates the special slash/area.

- `override void OnStateEnter(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateUpdate(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateExit(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`

`HeroStateBehaviour : StateMachineBehaviour` `Hero/StateMachine/HeroStateBehaviour.cs`

Base for the hero animator state behaviours: caches the HeroController.

`SetNormalizedTimeSMB : StateMachineBehaviour` `Hero/StateMachine/SetNormalizedTimeSMB.cs`

Writes the normalized time of the state into a float parameter (used by transitions).

- `override void OnStateEnter(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`
- `override void OnStateUpdate(Animator animator, AnimatorStateInfo stateInfo, int layerIndex)`

▼ Pickups

`LootDropper : MonoBehaviour` `Pickups/LootDropper.cs`

Drops health, ammo and EXP orbs when the Damageable dies. Drop chances get the hero bonuses (Heal Boost skill, drop chips) and ammo is more likely when the gun is empty.

`Pickup : MonoBehaviour` `Pickups/Pickup.cs`

Health / ammo / EXP drop. Pops out of the enemy in an arc, then can be collected. EXP orbs fly to the hero automatically.

- `void Drop(Vector3 position)`

`PickupSettings : MonoBehaviour` `Pickups/PickupSettings.cs`

Default pickup prefabs used by every LootDropper in the scene.

▼ Skills

`HeroAura : MonoBehaviour` `Skills/HeroAura.cs`

Elemental aura skills. Damages and applies the element to every enemy inside the radius, ticking faster with higher attack speed.

- `void SetAura(SkillId id, int newLevel)`
- `void Clear()`

`HeroSkills : MonoBehaviour, IStatContributor` `Skills/HeroSkills.cs`

Skills picked on level up. Stores levels, applies stat effects and exposes flags used by the gun, the aura and the progression.

- `int Level(SkillDefinition def)`
- `void CollectEffects(List<(BoostEffect, int)`
- `void AddShieldCharges(int charges)`
- `int Level(SkillId id)`
- `bool Has(SkillId id)`
- `static float AuraScale(int level)`
- `static float AuraDamage(SkillId aura, int level)`
- `static float IceAuraSlow(int level)`
- `static float ThunderAuraChain(int level)`
- `static float WeaknessAuraReduction(int level)`
- `static float FrailtyAuraMultiplier(int level)`
- `static bool IsAura(SkillId id)`
- `static bool RequiresGun(SkillId id)`
- `void Contribute(StatModifiers m, float lost)`
- `bool IsAvailable(SkillDefinition def)`
- `void GetOffers(List<SkillDefinition> result, int count)`
- `void Acquire(SkillDefinition def)`

- `void Acquire(SkillId id)`
- `void ResetSkills()`
- `event Action<SkillId, int> SkillAcquired`
- `event Action SkillsReset`

`SkillLevelText` `Skills/SkillDatabase.cs`

`SkillDefinition` `Skills/SkillDatabase.cs`

`SkillDatabase : ScriptableObject` `Skills/SkillDatabase.cs`

Names, icons, texts and pick rules of every skill. Effects live in HeroSkills.

- `SkillLevelText TextForLevel(int level)`
- `SkillDefinition GetCustom(string key)`
- `SkillDefinition Get(SkillId id)`

▼ UI

`Billboard : MonoBehaviour` `UI/Billboard.cs`

Keeps world space texts/canvases facing the camera.

`ChipLoadoutPanel : MonoBehaviour` `UI/ChipLoadoutPanel.cs`

Equip chips at runtime: one dropdown per slot (chip type) plus one for the level. The rows are set in the Combat Manager prefab, the options are filled automatically.

`SlotRow` `UI/ChipLoadoutPanel.cs`

- `void Refresh()`
- `void Toggle()`
- `void SetOpen(bool open)`

`CombatManager : MonoBehaviour` `UI/CombatManager.cs`

Scene glue: respawns the hero, opens the pause/chip/companion panels and handles the debug shortcuts. Shortcuts: Esc = pause/help, Tab = chips panel, C = companion. Debug tools (Editor and development builds only): F1 = +EXP, F2 = skill pick, F3 = reset run, F4 = mobile controls.

- `void TogglePause()`
- `void ToggleChips()`
- `void ToggleCompanions()`
- `void ToggleCompanionsFromPause()`
- `void GiveExp()`
- `void GiveSkillPick()`
- `void ResetRun()`
- `void ToggleChipsFromPause()`
- `void CycleMobileControls()`
- `void Resume()`
- `void QuitApplication()`

`ComboCounter : MonoBehaviour` `UI/ComboCounter.cs`

"x23" combo counter: every hero hit adds 1, getting hurt or 5 seconds without hitting resets it. The text shakes harder with bigger combos and shrinks while the timer runs out.

- `void ResetCombo()`

`CompanionHUD : MonoBehaviour` `UI/CompanionHUD.cs`

HUD card of the equipped companion: icon, name, level, health and stats (CompanionStats). Hidden when there is no companion. Builds its own UI under this RectTransform.

`CompanionSelectionPanel : MonoBehaviour` `UI/CompanionSelectionPanel.cs`

Lists the companions of a CompanionSelector (plus "None") as buttons created from a template. Picking one spawns it and closes the panel. The game is paused while the panel is open. Next to the list, the stats of the equipped companion (CompanionStats) with free + buttons.

`StatRow` `UI/CompanionSelectionPanel.cs`

- `void Toggle()`
- `void SetOpen(bool open)`

`DamagePopups : MonoBehaviour` `UI/DamagePopups.cs`

Floating damage numbers for every damageable (critical, headshot, elements, heal, miss, block). Texts are pooled world-space TextMeshPro objects created at runtime (no prefab needed).

`Popup` `UI/DamagePopups.cs`

`EnemyTestPanel : MonoBehaviour` `UI/EnemyTestPanel.cs`

Demo panel to try the enemies: click an enemy to spawn it next to the hero, tick the ones used by the waves, turn the waves on/off and clear the arena. Opens with E or the ENEMIES button. Builds its own UI.

`Group` `UI/EnemyTestPanel.cs`

- `void Toggle()`
- `void SetOpen(bool open)`
- `void SpawnNearHero(EnemyAI prefab)`
- `void ClearEnemies()`
- `void SetWaves(bool on)`

`HealthBarOverlay : MonoBehaviour` `UI/HealthBarOverlay.cs`

Draws the health bars of every HealthBarTarget on a screen space canvas. Bars are simple UI images created at runtime.

`Bar` `UI/HealthBarOverlay.cs`

- `static void Register(HealthBarTarget t)`
- `static void Unregister(HealthBarTarget t)`

`HealthBarTarget : MonoBehaviour` `UI/HealthBarTarget.cs`

Shows a small health bar above this character (drawn by the HealthBarOverlay in the HUD).

`HeroHUD : MonoBehaviour` `UI/HeroHUD.cs`

Screen HUD: health, EXP, skill EXP, level, ammo, dash cooldown, sword charges and skills picked.

`MobileControls : MonoBehaviour` `UI/MobileControls.cs`

Shows the on-screen joystick and buttons (Input System OnScreenStick / OnScreenButton) on touch devices, or always/never.

- `void Apply()`
- `void CycleMode()`
- `void SetVisible(bool visible)`

`SkillCard : MonoBehaviour` `UI/SkillCard.cs`

One option of the level up panel.

- `void Show(SkillDefinition def, int nextLevel, int index, Action<SkillDefinition> picked)`
- `void Hide()`

`SkillSelectionPanel : MonoBehaviour` `UI/SkillSelectionPanel.cs`

Opens when the hero has a skill pick: pauses the game and shows random skill options. Options can be picked with the mouse/touch, gamepad (UI navigation) or the 1/2/3 keys.

`StatusEffectBar : MonoBehaviour` `UI/StatusEffectBar.cs`

HUD row with the status effects of the hero (or any StatusEffects): burn, slow / frozen, weakness and frailty, each with its icon, what it does and a bar with the time left. Builds its own UI under this RectTransform.

`Badge` `UI/StatusEffectBar.cs`

`UIBar : MonoBehaviour` `UI/UIBar.cs`

Filled image bar with optional text and a delayed "damage" trail.

▼ Weapons

`HeroProjectile : MonoBehaviour` `Weapons/HeroProjectile.cs`

Hero bullet. Moves with sphere casts and asks the HeroGun to resolve every hit, so all gun skills (pierce, ricochet, wall bounce, split shot, headshot...) are computed in one place.

- `void Launch(HeroGun owner, Vector3 dir)`
- `void Redirect(Vector3 newDirection, Damageable ignore)`

`LobProjectile : MonoBehaviour` `Weapons/LobProjectile.cs`

Ballistic projectile (bombs, goo): flies in an arc to a point and explodes when it touches the ground or a target, damaging every hostile target in the explosion radius. Can leave a hazard on the ground.

- `static LobProjectile Spawn(LobProjectile prefab, Vector3 position, Vector3 target, Team team, int damage, GameObject owner)`
- `void Launch(Vector3 target, Team team, int dmg, GameObject owner)`

`MeleeHitbox : MonoBehaviour` `Weapons/MeleeHitbox.cs`

Sphere based melee hit detection. While a swing is active, every attack point is checked each physics step and each target can only be hit once per swing. Damage is built by the owner through DamageProvider.

`AttackPoint` `Weapons/MeleeHitbox.cs`

- `void BeginSwing()`
- `void EndSwing()`
- `void BeginSpecial()`
- `bool TryHit(Collider col)`
- `bool ApplyHit(Damageable target, Vector3 point)`
- `event Action<Damageable, DamageInfo, DamageResult> Hit`
- `event Action<SimpleProjectile> Reflected`

`SimpleProjectile : MonoBehaviour` `Weapons/SimpleProjectile.cs`

Straight projectile used by enemies and companions. Uses sphere casts (no rigidbody needed) and can be reflected by the hero sword (Reflector Blade) or the Knight companion.

- `static SimpleProjectile Spawn(SimpleProjectile prefab, Vector3 position, Vector3 direction, Team team, int damage, GameObject owner)`
- `void FixHeight(float height, float duration)`
- `void SetHomingTarget(Targetable target)`
- `void Launch(Vector3 dir, Team team, int dmg, GameObject owner)`
- `void Reflect(Team newTeam, GameObject newOwner, int newDamage)`

`SlashEffect : MonoBehaviour` `Weapons/SlashEffect.cs`

Visual slash (mesh + Animation) that turns itself off when the animation ends. When areaRadius > 0 it also damages everything inside the radius through the owner hitbox (used by the charged special attacks).

- `void Activate()`
- `void Deactivate()`

More code recipes

A new boost in code

1. Add a value to `SkillId`, before `Custom` (1000).
2. Add the effect in `HeroSkills.Contribute`, or a property you read where needed.
3. An instant effect goes in the switch of `HeroSkills.Acquire`.
4. If it needs the gun, add it to `HeroSkills.RequiresGun`.
5. Add the entry in `Data/Skill Database.asset`.

Prefer the Boost and Chip Creator when data effects are enough.

A new chip in code

1. Add the value at the end of `ChipType`, and handle it in `SlotOf`. The enum is saved as a number, so inserting in the middle shifts the others.
2. Fill `ChipCatalog`: `DisplayName`, `Description` and values.
3. Add the effect in `HeroChips.Contribute`, `HeroGun`, `HeroMelee` or `HeroController`.

The Chip Library and the chips panel pick it up by themselves.

A new data effect type

1. Add a value to `BoostEffectType` in the right range: 0-99 attribute, 100-199 on hit, 200-299 on kill, 300 over time, 400+ instant.
2. In `BoostEffect`: `ValueLabel`, `Describe` and, for an attribute, `Contribute`.
3. In `BoostEffectRunner`: `OnDamage`, `OnKilled`, `Tick` or `ApplyInstant`.
4. `UsesChance`, `UsesSource`, `UsesDuration`, `UsesVfx` and `HasValue` decide the fields shown.

A new sound

1. Add a value to `SoundId`, in the category range.
2. Open the Sound Library inspector: it creates the entry. Write the description.
3. On the object: AudioSource + `RandomAudio`, or call `SoundLibrary.PlayAt`.

Pitfalls

- **Pools keep values.** Projectiles, pickups and enemies come back with the values of their last life. Reset in `OnEnable`, `OnRestart` or `Launch`. Mark per launch, not per object: `SimpleProjectile.LaunchCount` exists for this.
- **Enums are saved as numbers.** Don't insert in the middle of `ChipType`, `SkillId`, `SoundId` or `BoostEffectType` without updating the assets.

- **Hit stop uses `Animator.speed`.** Don't use `Time.timeScale`, which belongs to the menus. Things that must run during a pause use unscaled time.
- **`TargetRegistry` takes the attacker's team.** `TargetRegistry.Closest(pos, Team.Hero)` returns enemies. The wrong team returns the opposite list.
- **Don't edit the default controller.** `Hero Combat (Default).controller` is the backup.
- **Hero clips have no curves or events by default.** Read curves through `HeroController`, which knows the overrides from `HeroAnimationTiming`.
- **A destroyed Unity object compares equal to null.** To detect a changed reference, use `ReferenceEquals`.
- **Test the real effect.** To check a companion hit, filter `CombatEvents` by `kind` and `instigator`.

Animator

`Characters/Hero/Animations/Hero Combat.controller` has one layer. The default state is Respawn. Clips are Humanoid, so they play on any humanoid character.

- **Sub-machines:** LocomotionSM, AirborneSM, LandingSM, MeleeCombatSM (HeroCombo1-3), Specials, Attack (Shoot, MachineGunStart, MachineGunLoop, MachineGunEnd).
- **Root states:** Hurt, Death, Respawn, Dodge, Dash.
- **Tags:** BlockInput (Hurt, Death, Respawn), Attack, Shooting, Idle, Landing.

Parameters: VerticalSpeed, ForwardSpeed, AirborneVerticalSpeed, Grounded, InputDetected, MeleeAttack, Hurt, Death, HurtFromX, HurtFromY, StateTime, FootFall, Shoot, ShootPressed, ASPD, ASPDGun, Dodge, WalkSpeed, HasCombo2, HasCombo3, HitTank, CycleOffset, Shooted, Dash, DashBoost, MeleeBoost, ChargeLevel, CurrentCharge, SteelBody, WalkingAttackWeight.

STATE BEHAVIOUR	WHAT IT DOES
`HeroAnimationTiming`	Fires the combat events at normalized times and gives the curves, so clips need neither.
`HeroComboAttackSMB`	One combo step: damage values and slash.
`HeroSpecialAttackSMB`	A charged special.
`HeroDashSMB`	Invulnerability, passing through enemies, elemental dash.
`HeroHurtSMB`	Short armor window.
`HeroInvulnerableSMB`	No damage in this state (dodge, death).
`HeroSpawnSMB`	Protected during respawn.
`HeroRecoverSMB`	Ends the special chain.
`HeroResetAttackSMB`	Clears pending requests.
`SetNormalizedTimeSMB`	Writes `StateTime`, used by transitions.

Animation events a clip can send: `EquipSword`, `VisualEquipSword`, `MeleeAttackStart`, `MeleeAttackEnd`, `SpecialAttackStart`, `Shoot`, `MakeInvulnerable`, `MakeVulnerable`.

Enemies and companions are driven by code, and their animator is optional.

CHARACTER	PARAMETERS USED WHEN PRESENT
Enemy (`EnemyAI`)	Speed (float), Attack, Hit, Death (triggers)
Companion (`CompanionController`)	IsMoving (bool), Attack, Hit, Dodge, Deflect, Death (triggers)

PART 6. REFERENCE

Component reference

Every public field of the runtime, read from the scripts. **Default** is the value in code. A prefab can have another value, and the prefab is what counts in the game. An empty description means the name says it all or the field is explained in the chapter of that system.

▼ Audio (12 fields)

`RandomAudio` `Audio/RandomAudio.cs`

FIELD	TYPE	DEFAULT	DESCRIPTION
`sound`	`SoundId`		Sound of the Sound Library played here (Tools > Zeuk Games > Cyber Combat Kit > Sound Library).
`alternateSounds`	`SoundId[]`	`new SoundId[0]`	Sounds played by index (PlayIndex 1, 2, ...); index 0 is Sound. Used by the hero dash: Fire, Ice and Thunder Dash.
`clips`	`AudioClip[]`	`new AudioClip[0]`	Optional: clips only for this object. When set, the Sound Library is not used here.
`randomizePitch`	`bool`	`true`	
`pitchRandomRange`	`float`	`0.2f`	
`playDelay`	`float`		

`Entry` `Audio/SoundLibrary.cs`

FIELD	TYPE	DEFAULT	DESCRIPTION
`id`	`SoundId`		
`clips`	`AudioClip[]`	`new AudioClip[0]`	One is picked at random each time.
`volume`	`float`	`1f`	
`description`	`string`		
`masterVolume`	`float`	`1f`	
`entries`	`Entry[]`	`new Entry[0]`	

▼ Boosts (7 fields)

`BoostEffect` `Boosts/BoostEffect.cs`

FIELD	TYPE	DEFAULT	DESCRIPTION
`type`	`BoostEffectType`		
`values`	`float[]`	`{ 10f }`	Value per level (element 0 = level 1). Higher levels use the last one.
`source`	`BoostAttackSource`	`BoostAttackSource.SwordAndGun`	On hit effects: attacks that trigger it.
`chance`	`float`	`100f`	On hit effects: chance of each hit (%).
`duration`	`float`	`5f`	Status effects: seconds. Explode On Kill: radius (m).
`vfx`	`GameObject`		Explode On Kill: effect spawned at the explosion (scaled to the radius).
`sound`	`SoundId`		Explode On Kill: sound of the Sound Library.

▼ Chips (18 fields)

`ChipDefinition` `Chips/ChipDefinition.cs`

FIELD	TYPE	DEFAULT	DESCRIPTION
`displayName`	`string`	`"New Chip"`	
`slot`	`ChipSlot`	`ChipSlot.Body`	
`icon`	`Sprite`		Optional, for your own UI (the chips panel of the demo lists the names).
`levelDescriptions`	`string[]`	`new string[0]`	Optional text per level (element 0 = level 1). Empty: made from the effects.
`effects`	`List<BoostEffect>`	`new List<BoostEffect>()`	

`DefaultChip` Chips/ChipLibrary.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`type`	`ChipType`		
`displayName`	`string`		Empty = the default name.
`icon`	`Sprite`		Optional, for your own UI (the chips panel of the demo lists the names).
`enabled`	`bool`	`true`	Shown in the chips panel.
`extraEffects`	`List<BoostEffect>`	`new List<BoostEffect>()`	Added to the chip's own effect.

`ChipLibrary` Chips/ChipLibrary.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`projectLibrary`	`bool`		Your own copy of the library: used instead of the kit one.
`defaultChips`	`List<DefaultChip>`	`new List<DefaultChip>()`	
`chips`	`List<ChipDefinition>`	`new List<ChipDefinition>()`	

`HeroChips` Chips/HeroChips.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`startingChips`	`List<EquippedChip>`	`new List<EquippedChip>()`	
`powerBombVfx`	`GameObject`		Effect played here.
`alphaBombVfx`	`GameObject`		Effect played here.
`betaBombVfx`	`GameObject`		Effect played here.
`bombAudio`	`RandomAudio`		Sound played by this object.

▼ Companions (79 fields)

`CompanionAuraAbility` Companions/CompanionAuraAbility.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`element`	`Element`	`Element.Ice`	
`radius`	`float`	`3f`	
`interval`	`float`	`1f`	
`damage`	`int`	`3`	
`burnDamagePerTick`	`int`	`2`	
`freezeSlow`	`float`	`0.3f`	
`freezeDuration`	`float`	`2f`	

FIELD	TYPE	DEFAULT	DESCRIPTION
`weaknessReduction`	`float`	`0.3f`	
`frailtyMultiplier`	`float`	`1.15f`	
`boltPrefab`	`LightningBolt`		
`pulseVfx`	`ParticleSystem`		Effect played here.
`pulseAudio`	`RandomAudio`		Sound played by this object.

`CompanionController` Companions/CompanionController.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`displayName`	`string`	`"Companion"`	
`icon`	`Sprite`		
`owner`	`HeroController`		Hero to follow. Found automatically if empty.
`animator`	`Animator`		
`body`	`Transform`		Rotated towards targets (defaults to this transform).
`maxDistanceFromHero`	`float`	`5f`	Picks a new spot near the hero when farther than this.
`wanderRadius`	`Vector2`	`new Vector2(2f, 2.5f)`	
`teleportDistance`	`float`	`25f`	Teleports next to the hero when farther than this (e.g. stuck).
`turnSpeed`	`float`	`720f`	
`knockbackOnHit`	`bool`	`true`	Hits push the companion: one meter per point of hit intensity.
`knockbackDuration`	`float`	`0.25f`	Shortest time the companion stops after a pushing hit.
`deathVfx`	`GameObject`		Effect played here.
`healVfx`	`ParticleSystem`		Effect played here.
`hitAudio`	`RandomAudio`		Sound played by this object.
`deathAudio`	`RandomAudio`		Sound played by this object.
`dodgeAudio`	`RandomAudio`		Sound played by this object.
`stepAudio`	`RandomAudio`		Sound played by this object.
`renderers`	`Renderer[]`	`new Renderer[0]`	Renderers hidden when the companion dies.

`CompanionHealerAbility` Companions/CompanionHealerAbility.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`reserveCapacity`	`int`	`25`	Max HP stored to heal the hero.
`healPerSecond`	`int`	`2`	HP healed every second while healing.
`healRange`	`float`	`5f`	
`beam`	`LineRenderer`		
`healingVfx`	`ParticleSystem`		Effect played here.
`refillVfx`	`ParticleSystem`		Effect played here.
`healAudio`	`RandomAudio`		Sound played by this object.
`beamLoopAudio`	`RandomAudio`		Sound played by this object.

`CompanionMeleeAbility` Companions/CompanionMeleeAbility.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`hitbox`	`MeleeHitbox`		
`damage`	`int`	`12`	
`damageIntensity`	`float`	`1f`	
`attackRange`	`float`	`1.6f`	Distance to the edge of the enemy to start the attack.
`leashRange`	`float`	`7f`	Only enemies this close to the hero are chased.
`attackInterval`	`float`	`2f`	
`hitDelay`	`float`	`0.25f`	Delay between the attack trigger and the hit window.
`hitWindow`	`float`	`0.35f`	
`attackTrigger`	`string`	`"Attack"`	
`swingEffect`	`GameObject`		Slash effect shown only during the swing (its Animation, if any, is played from the start).
`swingEffectDuration`	`float`	`0.35f`	
`deflectChance`	`float`	`0.5f`	
`deflectRadius`	`float`	`2.5f`	
`deflectTrigger`	`string`	`"Deflect"`	
`deflectVfx`	`ParticleSystem`		Effect played here.
`deflectAudio`	`RandomAudio`		Sound played by this object.

`CompanionRangedAbility` Companions/CompanionRangedAbility.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`projectilePrefab`	`SimpleProjectile`		
`muzzles`	`Transform[]`	`new Transform[0]`	
`damage`	`int`	`5`	
`range`	`float`	`12f`	
`attackInterval`	`float`	`1.5f`	
`muzzleDelay`	`float`	`0.1f`	Delay between the shots of each muzzle in the same volley.
`muzzleFlash`	`ParticleSystem`		Effect played here.
`shootAudio`	`RandomAudio`		Sound played by this object.
`attackTrigger`	`string`	`"Attack"`	

`CompanionSelector` Companions/CompanionSelector.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`hero`	`HeroController`		
`companions`	`List<CompanionController>`	`new List<CompanionController>()`	Companions that can be selected.
`startingCompanion`	`int`	`-1`	Index spawned at start (-1 = none).
`spawnDistance`	`float`	`2.5f`	
`spawnVfx`	`GameObject`		Effect played here.

`CompanionStat` Companions/CompanionStats.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`name`	`string`	`"Health"`	
`unit`	`string`	`"HP"`	Shown after the value (HP, s, per bullet…). Can be empty.
`effect`	`CompanionStatEffect`	`CompanionStatEffect.MaxHealth`	
`level1`	`float`	`100f`	Value at level 1.
`maxLevelValue`	`float`	`1000f`	Value at the max level. Lower than level 1 for times (attack interval in seconds).
`decimals`	`bool`		Show one decimal (seconds); otherwise the value is rounded.
`level`	`int`	`1`	

`CompanionStats` Companions/CompanionStats.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`role`	`string`	`"Attacker"`	Shown under the name (Attacker, Protector, Healer…).
`health`	`CompanionStat`	`new CompanionStat()`	
`power`	`CompanionStat`	`new CompanionStat { name = "Damage", unit = "per hit", effect = CompanionStatEffect.MeleeDamage, level1 = 10f, maxLevelValue = 50f }`	
`speed`	`CompanionStat`	`new CompanionStat { name = "Attack speed", unit = "s", effect = CompanionStatEffect.MeleeAttackInterval, level1 = 2f, maxLevelValue = 1f, decimals = true }`	

▼ Core (40 fields)

`Damageable` Core/Damageable.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`team`	`Team`	`Team.Enemy`	
`maxHealth`	`int`	`100`	
`immortal`	`bool`		Never drops below 1 HP. Useful for training dummies.
`isBoss`	`bool`		
`element`	`Element`	`Element.Normal`	Elemental affinity. Attacks of the same element deal 10% damage, the weak element deals 190%.
`dodgeChance`	`float`		
`damageReduction`	`float`		
`invulnerabilityAfterHit`	`float`		Seconds of invulnerability after receiving damage.
`repeatedMeleeHitWindow`	`float`		Ignore repeated hits from the same melee weapon inside this window (seconds).
`startInvulnerable`	`bool`		
`onDamaged`	`UnityEvent`		
`onDeath`	`UnityEvent`		

`LightningBolt` Core/LightningBolt.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`segments`	`int`	`10`	
`jitter`	`float`	`0.35f`	

FIELD	TYPE	DEFAULT	DESCRIPTION
`refreshRate`	`float`	`0.05f`	

`StatusEffects` Core/StatusEffects.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`burnVisual`	`GameObject`		
`freezeVisual`	`GameObject`		
`frozenSolidVisual`	`GameObject`		
`weaknessVisual`	`GameObject`		
`frailtyVisual`	`GameObject`		
`burnAudio`	`RandomAudio`		Sound played by this object.
`freezeAudio`	`RandomAudio`		Sound played by this object.
`weaknessAudio`	`RandomAudio`		Sound played by this object.
`frailtyAudio`	`RandomAudio`		Sound played by this object.
`freezeBuildUp`	`float`	`4f`	Seconds slowed before the target freezes solid (only if the freeze lasts long enough).
`frozenOverlay`	`Material`		Covers every mesh of the character while frozen solid (ice shell).
`frozenSolidEffect`	`GameObject`		Created at the feet while frozen solid (ice crystals), scaled to the character height and aligned to the world.
`shatterVfx`	`GameObject`		Spawned when the ice breaks.
`frozenAudio`	`RandomAudio`		Sound played by this object.
`shatterAudio`	`RandomAudio`		Sound played by this object.

`Targetable` Core/Targetable.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`aimPoint`	`Transform`		Point projectiles aim at. Defaults to the collider center.

`TopDownCamera` Core/TopDownCamera.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`target`	`Transform`		Followed object. The hero is found automatically if empty.
`offset`	`Vector3`	`new Vector3(0f, 45f, -40f)`	
`pivotHeight`	`float`	`1.17f`	Height used as the follow pivot, so jumps/knockbacks don't move the camera vertically.
`smoothTime`	`float`		0 = snap to target.
`audioListener`	`Transform`		Kept on the target, so 3D sounds are heard from the hero and not from the camera height.
`listenerHeight`	`float`	`1.5f`	

`VfxPool` Core/VfxPool.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`instance`	`GameObject`		
`prefab`	`GameObject`		
`releaseTime`	`float`		

▼ Enemies (160 fields)

`BasicEnemyDronePower` Enemies/BasicEnemyDronePower.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`Power`	`float`	`1`	

`BouncerBehaviour` Enemies/BouncerBehaviour.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`spinSpeed`	`float`	`1690f`	Spins the visual around its up axis (degrees per second).
`stuckTime`	`float`	`1f`	Seconds without moving before it picks a new random point.
`wanderArea`	`float`	`10f`	
`bounceVfx`	`GameObject`		Effect played here.
`bounceAudio`	`RandomAudio`		Sound played by this object.

`ContactDamage` Enemies/ContactDamage.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`radius`	`float`	`0.8f`	
`offset`	`Vector3`	`new Vector3(0f, 0.5f, 0f)`	
`damage`	`int`		0 uses the damage of the EnemyAI.
`element`	`Element`	`Element.Normal`	
`knockback`	`float`	`1f`	
`cooldown`	`float`	`1f`	
`hitVfx`	`GameObject`		Effect played here.
`hitAudio`	`RandomAudio`		Sound played by this object.
`elementalHit`	`ElementalHit`	`new ElementalHit()`	

`ElementalHit` Enemies/ElementalHit.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`burnFraction`	`float`	`0.15f`	Burn damage per second, as a fraction of the hit damage (5 seconds).
`freezeSlow`	`float`	`0.2f`	Speed lost while slowed (0.2 = 80% speed).
`freezeDuration`	`float`	`5f`	Slowed for StatusEffects.freezeBuildUp (4 s), then frozen solid for freezeSolidTime.
`freezeSolidTime`	`float`	`2f`	
`weaknessMultiplier`	`float`	`0.5f`	Damage dealt by the target is multiplied by this (10 seconds).
`frailtyMultiplier`	`float`	`1.25f`	Damage received by the target is multiplied by this (10 seconds).
`thunderChainFraction`	`float`	`0.3f`	Chain damage to other targets near the hit one, as a fraction of the hit damage.
`thunderChainRadius`	`float`	`4f`	
`thunderBolt`	`LightningBolt`		

`EnemyAI` Enemies/EnemyAI.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`attackType`	`AttackType`	`AttackType.Melee`	
`detectionRange`	`float`	`25f`	
`attackRange`	`float`	`1.8f`	
`attackCooldown`	`float`	`1.5f`	
`attackWindup`	`float`	`0.45f`	Telegraph time before the hit lands.
`damage`	`int`	`8`	
`attackIntensity`	`float`	`2f`	Knockback applied by melee hits.
`attackElement`	`Element`	`Element.Normal`	
`projectilePrefab`	`SimpleProjectile`		
`muzzle`	`Transform`		
`turnSpeed`	`float`	`540f`	Degrees per second when turning.
`staggerTime`	`float`	`0.25f`	
`knockbackStrength`	`float`	`1f`	Meters pushed per point of hit intensity (0 for enemies that never move, like turrets).
`deathDespawnDelay`	`float`	`1.5f`	
`deathShrinkTime`	`float`		The visual shrinks during the last seconds of the despawn delay (0 = whole delay).
`visualRoot`	`Transform`		Animated (bob, punch, windup) without affecting the collider.
`hoverAmplitude`	`float`	`0.15f`	
`hoverSpeed`	`float`	`2.5f`	
`deathVfx`	`GameObject`		Effect played here.
`windupVfx`	`GameObject`		Effect played here.
`attackAudio`	`RandomAudio`		Sound played by this object.
`hitAudio`	`RandomAudio`		Sound played by this object.
`deathAudio`	`RandomAudio`		Sound played by this object.
`animator`	`Animator`		
`attackTrigger`	`string`	`"Attack"`	
`speedParameter`	`string`	`"Speed"`	Float parameter that receives the movement speed (ignored if the controller doesn't have it).
`hitTrigger`	`string`	`"Hit"`	
`deathTrigger`	`string`	`"Death"`	

`EnemyBehaviour` Enemies/EnemyBehaviour.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`canBeStaggered`	`bool`	`true`	Hits stop the enemy for EnemyAI.staggerTime. Turn off for enemies that keep acting when hit.

`EnemyGun` Enemies/EnemyGun.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`projectile`	`SimpleProjectile`		
`lobProjectile`	`LobProjectile`		Used instead of the straight projectile when set.
`aim`	`Aim`	`Aim.Forward`	

FIELD	TYPE	DEFAULT	DESCRIPTION
`angles`	`float[]`	`new float[0]`	One shot per angle (degrees, around the aim direction). Empty = one straight shot.
`speed`	`float`		Projectile speed. 0 keeps the prefab speed.
`radius`	`float`		Hit radius of the projectile. 0 keeps the prefab radius.
`fixHeight`	`bool`		The projectile moves to the height of the target in fixHeightTime (for guns placed high or low).
`fixHeightTime`	`float`	`0.5f`	
`element`	`Element`	`Element.Normal`	
`targetSpread`	`float`		Random offset of the target point (lobbed shots).
`muzzleJitter`	`float`		Random sideways offset of the muzzle on each shot.
`muzzleFlash`	`ParticleSystem`		Effect played here.
`shotAudio`	`RandomAudio`		Sound played by this object.

`Entry` Enemies/EnemySpawner.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`prefab`	`EnemyAI`		
`weight`	`float`	`1f`	
`enemies`	`List<Entry>`	`new List<Entry>()`	
`spawnPoints`	`Transform[]`	`new Transform[0]`	Spawn points. If empty, enemies spawn on a ring around this transform.
`ringRadius`	`float`	`12f`	
`maxAlive`	`int`	`6`	
`delayBetweenSpawns`	`float`	`0.6f`	
`delayBetweenWaves`	`float`	`3f`	
`minDistanceToHero`	`float`	`6f`	Spawns are not made closer than this to the hero.
`spawnVfx`	`GameObject`		Effect played here.
`spawnOnStart`	`bool`	`true`	

`HazardTrail` Enemies/HazardTrail.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`zone`	`HazardZone`		
`spacing`	`float`	`0.8f`	Distance travelled between two zones.
`damage`	`int`		Damage used by the zones (status strength). 0 uses the enemy damage.

`HazardZone` Enemies/HazardZone.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`radius`	`float`	`1.5f`	
`duration`	`float`	`4f`	
`tickInterval`	`float`	`0.5f`	
`element`	`Element`	`Element.Fire`	
`damageFraction`	`float`		Damage per tick, as a fraction of the damage of the attack that created the zone.

FIELD	TYPE	DEFAULT	DESCRIPTION
`elementalHit`	`ElementalHit`	`new ElementalHit { burnFraction = 0.1f }`	Status effect applied to targets inside (burn per second, weakness…).

`JumperBehaviour` Enemies/JumperBehaviour.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`jumpInterval`	`float`	`2.5f`	Seconds between jumps.
`intervalRandom`	`Vector2`	`new Vector2(0f, 1f)`	Random seconds added to the interval each time (min, max).
`jumpHeight`	`AnimationCurve`	`new AnimationCurve(new Keyframe(0f, 0f), new Keyframe(0.5f, 10f), new Keyframe(1f, 0f))`	Height of the visual during the jump (x = progress 0..1).
`maxSpeedDistance`	`float`	`10f`	Air time is maxSpeedDistance / clamp(distance, 3, 7) seconds.
`wanderArea`	`float`	`8f`	Landing points are picked around a random spot inside this radius around the spawn position.
`landingRadius`	`Vector2`	`new Vector2(1f, 2f)`	Distance from that spot (min, max).
`chanceNearTarget`	`float`	`0.1f`	Chance to land next to the target instead.
`jumpYaw`	`float`	`45f`	The jump rotates the enemy to this yaw (fixed shooting pattern).
`contactFrom`	`float`	`0.51f`	Progress of the jump after which the contact damage is active.
`guns`	`EnemyGun[]`	`new EnemyGun[0]`	
`contactDamage`	`ContactDamage`		
`takeoffVfx`	`GameObject`		Effect played here.
`landingVfx`	`GameObject`		Effect played here.
`targetMarker`	`GameObject`		Shown on the landing point during the jump.
`jumpAudio`	`RandomAudio`		Sound played by this object.
`landingAudio`	`RandomAudio`		Sound played by this object.

`LungeMeleeBehaviour` Enemies/LungeMeleeBehaviour.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`attackDistance`	`float`	`5f`	Starts the attack when the target is closer than this.
`cooldown`	`float`	`1f`	Seconds between the end of an attack and the next one.
`hitbox`	`MeleeHitbox`		
`element`	`Element`	`Element.Normal`	
`damageIntensity`	`float`	`1f`	
`elementalHit`	`ElementalHit`	`new ElementalHit()`	
`attackDuration`	`float`	`1.7f`	Length of the attack.
`hitWindow`	`Vector2`	`new Vector2(0.75f, 1.08f)`	Seconds after the attack start where the hitbox is active (start, end).
`lungeDistance`	`float`		Distance moved forward during the attack (0 = attacks in place).
`lungeWindow`	`Vector2`	`new Vector2(0.45f, 1.1f)`	Seconds after the attack start where the lunge happens (start, end).

FIELD	TYPE	DEFAULT	DESCRIPTION
`trackUntil`	`float`	`0.4f`	Turns to the target until this time of the attack.
`attackTrigger`	`string`	`"Attack"`	

`ShockTowerBehaviour` Enemies/ShockTowerBehaviour.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`attackInterval`	`float`	`4f`	Seconds between the end of a shock and the next charge.
`intervalRandom`	`Vector2`	`new Vector2(-1f, 1f)`	Random seconds added once when the tower spawns (min, max).
`radius`	`float`	`4.32f`	
`element`	`Element`	`Element.Thunder`	
`knockback`	`float`	`1f`	
`elementalHit`	`ElementalHit`	`new ElementalHit()`	
`attackDuration`	`float`	`3.333f`	
`chargeTimes`	`float[]`	`{ 0f, 0.667f, 1.333f, 2f }`	Each charge particle plays at its time.
`areaWindow`	`Vector2`	`new Vector2(1.383f, 2.65f)`	
`shockWindow`	`Vector2`	`new Vector2(2.667f, 3.017f)`	
`chargeParticles`	`ParticleSystem[]`	`new ParticleSystem[0]`	Effect played here.
`chargeAudio`	`RandomAudio`		Sound played by this object.
`areaIndicator`	`GameObject`		Area shown on the ground before the shock (object turned on, or particles played).
`areaParticles`	`ParticleSystem`		Effect played here.
`shockVfx`	`GameObject`		Spawned from the pool at the shock.
`shockParticles`	`ParticleSystem`		Played at the shock.
`shockAudio`	`RandomAudio`		Sound played by this object.

`ShooterBehaviour` Enemies/ShooterBehaviour.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`movement`	`Movement`	`Movement.Wander`	
`wanderArea`	`float`	`8f`	Wander: points are picked around a random spot inside this radius around the spawn position.
`wanderRadius`	`Vector2`	`new Vector2(1f, 4f)`	Wander: distance from that spot (min, max).
`chanceToTarget`	`float`		Wander: chance to walk to the target instead.
`pauseAtWaypoint`	`float`		Wander: seconds standing still after picking a new point.
`faceTargetWhileMoving`	`bool`		Face the target while moving (otherwise faces where it walks).
`keepDistance`	`float`	`3f`	Pursue: stops this far from the target (+- keepDistanceRandom).
`keepDistanceRandom`	`float`	`1f`	
`fleeDistance`	`float`	`6f`	Flee: runs when the target is closer than this.
`fleeRadius`	`float`	`20f`	
`attackInterval`	`float`	`4f`	Seconds between attacks.
`intervalRandom`	`Vector2`	`new Vector2(-1f, 2f)`	Random seconds added to the interval each time (min, max).

FIELD	TYPE	DEFAULT	DESCRIPTION
`intervalFromAttackStart`	`bool`		The interval counts from the start of the attack (otherwise from its end).
`attackWhenCloserThan`	`float`		Pursue: also attacks when the target gets closer than this (0 = off).
`randomWindup`	`Vector2`		Extra random telegraph before the attack timeline (min, max), standing and facing the target.
`attackDuration`	`float`	`1.6f`	Length of the attack, standing still.
`shotTimes`	`float[]`	`{ 1f }`	Seconds after the attack start where all guns fire.
`attackFacing`	`AttackFacing`	`AttackFacing.Target`	
`guns`	`EnemyGun[]`	`new EnemyGun[0]`	
`attackTrigger`	`string`	`"Attack"`	

`SpawnOnDeath` Enemies/SpawnOnDeath.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`minion`	`EnemyAI`		
`minCount`	`int`	`1`	
`maxCount`	`int`	`4`	
`radius`	`float`	`1.5f`	
`delay`	`float`	`0.2f`	
`spawnVfx`	`GameObject`		Effect played here.

`TrainingDummy` Enemies/TrainingDummy.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`resetDelay`	`float`	`3f`	
`dpsText`	`TMPro.TMP_Text`		Optional label showing damage per second.
`visualRoot`	`Transform`		Shakes when hit (optional).

▼ Hero (100 fields)

`HeroController` Hero/HeroController.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`maxForwardSpeed`	`float`	`8f`	
`gravity`	`float`	`20f`	
`dashIgnoreLayers`	`LayerMask`		Layers the hero passes through while dashing (e.g. Enemy).
`canAttack`	`bool`	`true`	
`dashCooldown`	`float`	`0.1f`	Seconds of dash cooldown (dash button overlay).
`meleeAssistLayers`	`LayerMask`	`~0`	Colliders checked by the sword chase (e.g. Enemy). Everything = any hostile Damageable.
`meleeFaceRadius`	`float`	`1.5f`	Enemies touching this sphere (in front of the hero) are faced automatically while attacking.
`meleeFaceForwardOffset`	`float`	`0.6f`	
`meleeChaseRange`	`float`	`10f`	Enemies in front of the hero up to this distance are chased.

FIELD	TYPE	DEFAULT	DESCRIPTION
`meleeChaseSpreadInner`	`float`	`0.3f`	Enemies this close (meters) to the line in front of the hero are chased, whatever the angle.
`meleeChaseSpreadOuter`	`float`	`0.5f`	Chase angle to each side: 0.5 = about 27 degrees.
`meleeChaseMinDistance`	`float`	`2.5f`	The hero only chases enemies farther than this.
`meleeChaseSpeed`	`float`	`4f`	Chase speed = WalkingAttackWeight curve x this value.
`hitStopPerIntensity`	`float`	`0.085f`	Hit stop duration per point of damage intensity (clamped 0.06 - 0.18s).
`hurtArmorTime`	`float`	`1f`	Seconds after being hurt in which another hurt animation can't interrupt you.
`knockbackMultiplier`	`float`	`0.5f`	Meters the hero is pushed per point of hit intensity (bullets, burns and auras don't push).
`gunInHand`	`GameObject`		
`gunOnBack`	`GameObject`		
`swordWeapon`	`GameObject`		
`swordHolstered`	`GameObject`		
`dashVfx`	`ParticleSystem`		Effect played here.
`fireDashVfx`	`ParticleSystem`		Effect played here.
`iceDashVfx`	`ParticleSystem`		Effect played here.
`thunderDashVfx`	`ParticleSystem`		Effect played here.
`dashAudio`	`RandomAudio`		Sound played by this object.
`dodgeAudio`	`RandomAudio`		Sound played by this object.
`elementalDashRadius`	`float`	`1.3f`	
`footstepAudio`	`RandomAudio`		Sound played by this object.
`hurtAudio`	`RandomAudio`		Sound played by this object.
`deathAudio`	`RandomAudio`		Sound played by this object.
`attackVoiceAudio`	`RandomAudio`		Sound played by this object.
`healVfx`	`ParticleSystem`		Effect played here.
`respawnVfx`	`ParticleSystem`		Effect played here.
`respawnAudio`	`RandomAudio`		Sound played by this object.

`HeroGun` Hero/HeroGun.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`muzzle`	`Transform`		
`muzzleFlash`	`ParticleSystem`		Effect played here.
`projectilePrefab`	`HeroProjectile`		
`boltPrefab`	`LightningBolt`		
`baseAmmoCapacity`	`int`	`40`	
`normalBulletDamage`	`float`	`0.55f`	
`shotgunPelletDamage`	`float`	`0.15f`	
`machineGunBulletDamage`	`float`	`0.08f`	
`autoAimRange`	`float`	`30f`	
`minAimHeight`	`float`	`0.15f`	Bullets never aim lower than this height above the hero's feet.

FIELD	TYPE	DEFAULT	DESCRIPTION
`normalShake`	`Vector2`	`new Vector2(0.08f, 0.05f)`	
`shotgunShake`	`Vector2`	`new Vector2(0.05f, 0.2f)`	
`machineGunShake`	`Vector2`	`new Vector2(0.3f, 0.02f)`	

`HeroInput` Hero/HeroInput.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`pressBuffer`	`float`	`0.1f`	How long (seconds) a button press stays buffered waiting to be consumed.
`shootHoldThreshold`	`float`	`0.2f`	Holding shoot for this long counts as 'held' (machine gun).
`useMouseButtons`	`bool`	`true`	

`HeroMelee` Hero/HeroMelee.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`hitbox`	`MeleeHitbox`		
`swordInHand`	`GameObject`		Sword in the hand (shown while attacking).
`swordOnBack`	`GameObject`		Sword on the back (shown while idle).
`comboSlashes`	`SlashEffect[]`	`new SlashEffect[0]`	One slash per combo step (HeroComboAttackSMB.slashIndex).
`specialSlashes`	`SlashEffect[]`	`new SlashEffect[0]`	One slash per special attack (HeroSpecialAttackSMB.specialIndex).
`specialAreas`	`SlashEffect[]`	`new SlashEffect[0]`	Area damagers of the special attacks (same indexes).
`specialVfx`	`ParticleSystem[]`	`new ParticleSystem[0]`	Effect played here.
`specialAudio`	`RandomAudio[]`	`new RandomAudio[0]`	Sound played by this object.
`chargeLevelVfx`	`ParticleSystem[]`	`new ParticleSystem[0]`	Effect played here.
`chargeGlow`	`GameObject`		
`chargeIcons`	`GameObject[]`	`new GameObject[0]`	
`chargeAudio`	`RandomAudio`		Sound played by this object.
`chargingLoopAudio`	`RandomAudio`		Sound played by this object.
`reflectAudio`	`RandomAudio`		Sound played by this object.

`HeroProgression` Hero/HeroProgression.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`levelUpVfx`	`ParticleSystem`		Effect played here.
`levelUpAudio`	`RandomAudio`		Sound played by this object.

`HeroStatsTable` Hero/HeroStatsTable.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`exp`	`float[]`	`(float[])HeroStatsDefaults.Exp.Clone()`	EXP needed to go from level N to N+1 (index = level - 1).
`maxHealth`	`int[]`	`(int[])HeroStatsDefaults.Hp.Clone()`	
`speed`	`int[]`	`(int[])HeroStatsDefaults.Speed.Clone()`	Movement speed, 100 = normal.
`attackSpeed`	`int[]`	`(int[])HeroStatsDefaults.Aspd.Clone()`	Attack speed, 100 = normal.
`damage`	`int[]`	`(int[])HeroStatsDefaults.Damage.Clone()`	

FIELD	TYPE	DEFAULT	DESCRIPTION
`critChance`	`int[]`	`(int[])HeroStatsDefaults.CritChance.Clone()`	Critical chance in percent.
`critDamage`	`int[]`	`(int[])HeroStatsDefaults.CritDamage.Clone()`	Critical damage bonus in percent.
`skillExp`	`float[]`	`(float[])HeroStatsDefaults.SkillExp.Clone()`	Accumulated skill EXP needed for each skill pick (index = number of skills already picked).

`HeroAnimationTiming` Hero/StateMachine/HeroAnimationTiming.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`time`	`float`		
`action`	`HeroAnimationEvent`		
`active`	`bool`		Off when the clip carries its own animation events and curves.
`repeat`	`bool`		Send the events again on every loop of the clip (machine gun). Off: each event once per state.
`events`	`List<TimedEvent>`	`new List<TimedEvent>()`	
`dashBoost`	`AnimationCurve`	`new AnimationCurve()`	
`meleeBoost`	`AnimationCurve`	`new AnimationCurve()`	
`chaseWeight`	`AnimationCurve`	`new AnimationCurve()`	
`footsteps`	`List<float>`	`new List<float>()`	Normalized times of the footsteps.
`inPlaceSpeed`	`float`		Forward speed (m/s) added while the state plays. 0 for clips with root motion.
`locomotion`	`bool`		Locomotion only: speed of the walk and run clips, used along the ForwardSpeed blend.
`walkSpeed`	`float`	`2.2f`	
`runSpeed`	`float`	`8.8f`	
`walkThreshold`	`float`	`1.424f`	
`runThreshold`	`float`	`8f`	

`HeroComboAttackSMB` Hero/StateMachine/HeroComboAttackSMB.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`slashIndex`	`int`		Index in HeroMelee.comboSlashes (also selects the hit camera shake).
`damageIntensity`	`float`	`1f`	How hard this hit pushes (meters, times the Knockback Strength of the enemy). Also scales the hit stop.
`damageMultiplier`	`float`	`1f`	Multiplier of the hero damage for this step.
`effectStartTime`	`float`		

`HeroResetAttackSMB` Hero/StateMachine/HeroResetAttackSMB.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`onExitToo`	`bool`	`true`	

`HeroSpecialAttackSMB` Hero/StateMachine/HeroSpecialAttackSMB.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
specialIndex	int		Index in HeroMelee.specialSlashes / specialAreas (0-3).
damageIntensity	float	1f	
damageMultiplier	float	1f	
effectStartTime	float		
vfxIndex	int		Index in HeroMelee.specialVfx.

SetNormalizedTimeSMB Hero/StateMachine/SetNormalizedTimeSMB.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
parameter	string	"StateTime"	

▼ Pickups (24 fields)

LootDropper Pickups/LootDropper.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
exp	float	40f	
skillExp	float	20f	
healthDropChance	float	0.08f	
ammoDropChance	float	0.35f	
healthPickup	Pickup		Leave empty to use the PickupSettings of the scene.
ammoPickup	Pickup		
expPickup	Pickup		

Pickup Pickups/Pickup.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
type	PickupType		
healthPercent	float	0.10f	Health: percent of max HP (0.1 = 10%).
ammoAmount	Vector2Int	new Vector2Int(3, 23)	Ammo: random amount (min, max).
collectRadius	float	1.2f	
lifetime	float	30f	
maxDropRange	float	2f	
arcHeight	float	1.5f	
dropDuration	float	0.5f	
groundHeight	float	0.5f	
magnetDelay	float	0.6f	
magnetSpeed	float	3f	
collectVfx	GameObject		Effect played here.
collectAudio	RandomAudio		Sound played by this object.
amountText	TMPro.TMP_Text		Shows the ammo amount (optional).

PickupSettings Pickups/PickupSettings.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
healthPickup	Pickup		
ammoPickup	Pickup		
expPickup	Pickup		

▼ Skills (37 fields)

HeroAura Skills/HeroAura.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
auraRoot	Transform		Object scaled by the aura level (0.35 / 0.5 / 0.65). Usually holds the visuals below.
radiusAtScaleOne	float	6f	Damage radius when the aura root scale is 1.
baseTickInterval	float	1.0667f	Seconds between ticks at 100 attack speed.
fireVisual	GameObject		
iceVisual	GameObject		
thunderVisual	GameObject		
weaknessVisual	GameObject		
frailtyVisual	GameObject		
fireAudio	RandomAudio		Sound played by this object.
iceAudio	RandomAudio		Sound played by this object.
thunderAudio	RandomAudio		Sound played by this object.
weaknessAudio	RandomAudio		Sound played by this object.
frailtyAudio	RandomAudio		Sound played by this object.
tickAudio	RandomAudio		Sound played by this object.
boltPrefab	LightningBolt		
chainRadius	float	5f	

HeroSkills Skills/HeroSkills.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
database	SkillDatabase		
shieldVisual	GameObject		
shieldUpAudio	RandomAudio		Sound played by this object.
shieldHitAudio	RandomAudio		Sound played by this object.
shieldBreakAudio	RandomAudio		Sound played by this object.
shieldChargesPerPick	int	4	

SkillLevelText Skills/SkillDatabase.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
description	string		
details	string		

`SkillDefinition` Skills/SkillDatabase.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`id`	`SkillId`		
`key`	`string`		Custom boosts only: unique name used to save its level.
`displayName`	`string`		
`icon`	`Sprite`		
`maxLevel`	`int`	`1`	0 = can be picked unlimited times. Otherwise the max level (1 = unique).
`weight`	`float`	`1f`	Relative chance of being offered.
`enabled`	`bool`	`true`	
`levels`	`SkillLevelText[]`	`new SkillLevelText[] { new SkillLevelText() }`	Text per level (index 0 = level 1). Unlimited skills use only the first entry.
`requiresGun`	`bool`		Custom boosts: hidden when the gun is gone (Super Charged Sword).
`effects`	`List<BoostEffect>`	`new List<BoostEffect>()`	Data driven effects. Custom boosts are made only of these; on a default boost they are added to its own effect.

`SkillDatabase` Skills/SkillDatabase.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`optionsPerLevelUp`	`int`	`3`	How many options the level up panel shows.
`baseSkillLimit`	`int`	`6`	Max skills picked per run (Exp Boost increases it).
`skills`	`List<SkillDefinition>`	`new List<SkillDefinition>()`	

▼ UI (129 fields)

`SlotRow` UI/ChipLoadoutPanel.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`slot`	`ChipSlot`		
`typeDropdown`	`TMP_Dropdown`		
`levelDropdown`	`TMP_Dropdown`		
`description`	`TMP_Text`		
`types`	`List<ChipType>`	`new List<ChipType>()`	
`customs`	`List<ChipDefinition>`	`new List<ChipDefinition>()`	
`chips`	`HeroChips`		
`root`	`GameObject`		
`rows`	`List<SlotRow>`	`new List<SlotRow>()`	

`CombatManager` UI/CombatManager.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`hero`	`HeroController`		Found automatically if empty.
`respawnPoint`	`Transform`		Where the hero comes back after dying. Empty = where the hero started.
`respawnDelay`	`float`	`3f`	

FIELD	TYPE	DEFAULT	DESCRIPTION
`pausePanel`	`GameObject`		
`deathPanel`	`GameObject`		
`chipPanel`	`ChipLoadoutPanel`		
`companionPanel`	`CompanionSelectionPanel`		
`skillPanel`	`SkillSelectionPanel`		
`mobileControls`	`MobileControls`		
`spawner`	`EnemySpawner`		Found automatically if empty.
`waveText`	`TMPro.TMP_Text`		
`debugTools`	`bool`	`true`	F1 to F4 and their pause menu buttons. They never work in release builds.
`debugObjects`	`GameObject[]`		Objects shown only while the debug tools work.

`ComboCounter` UI/ComboCounter.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`root`	`GameObject`		
`label`	`GameObject`		The word next to the number. Hidden with it.
`text`	`TMPro.TMP_Text`		
`shakeTarget`	`RectTransform`		
`comboTime`	`float`	`5f`	
`fontSize`	`float`	`100f`	

`CompanionHUD` UI/CompanionHUD.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`selector`	`CompanionSelector`		Found automatically if empty.
`font`	`TMP_FontAsset`		Font.
`accentColor`	`Color`	`new Color(0.2f, 0.9f, 1f)`	
`healthColor`	`Color`	`new Color(0.25f, 0.9f, 0.45f)`	

`CompanionSelectionPanel` UI/CompanionSelectionPanel.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`selector`	`CompanionSelector`		
`root`	`GameObject`		
`listRoot`	`Transform`		
`buttonTemplate`	`Button`		Inactive button used as template. Needs an Image child named 'Icon' and a TMP text child.
`selectedColor`	`Color`	`new Color(0.2f, 0.9f, 1f, 1f)`	
`normalColor`	`Color`	`new Color(0.1f, 0.16f, 0.24f, 0.95f)`	
`showUpgrades`	`bool`	`true`	Window next to the list with the stats of the equipped companion and a free + button per stat.
`font`	`TMP_FontAsset`		Font.

FIELD	TYPE	DEFAULT	DESCRIPTION
`nextValueColor`	`Color`	`new Color(0.36f, 1f, 0.54f)`	
`plusLabel`	`TMP_Text name, level, value,`		
`plus`	`Button`		
`pips`	`Image[]`		

`DamagePopups` UI/DamagePopups.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`font`	`TMP_FontAsset`		Font.
`fontSize`	`float`	`8f`	
`lifetime`	`float`	`0.8f`	
`riseSpeed`	`float`	`2.5f`	
`heightOffset`	`float`	`2f`	
`randomSpread`	`float`	`0.5f`	
`alwaysOnTop`	`bool`	`true`	Draws the numbers over the characters and effects instead of behind them.
`normalColor`	`Color`	`Color.white`	
`criticalColor`	`Color`	`new Color(1f, 0.85f, 0.1f)`	
`headshotColor`	`Color`	`new Color(1f, 0.2f, 0.2f)`	
`heroDamageColor`	`Color`	`new Color(1f, 0.3f, 0.3f)`	
`healColor`	`Color`	`new Color(0.3f, 1f, 0.4f)`	
`fireColor`	`Color`	`new Color(1f, 0.5f, 0.1f)`	
`iceColor`	`Color`	`new Color(0.4f, 0.9f, 1f)`	
`thunderColor`	`Color`	`new Color(1f, 1f, 0.4f)`	
`infoColor`	`Color`	`new Color(0.8f, 0.8f, 0.8f)`	
`text`	`TextMeshPro`		
`age`	`float`		
`velocity`	`Vector3`		
`color`	`Color`		
`scale`	`float`		

`Group` UI/EnemyTestPanel.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`title`	`string`		
`enemies`	`List<EnemyAI>`	`new List<EnemyAI>()`	
`groups`	`List<Group>`	`new List<Group>()`	
`spawner`	`EnemySpawner`		Found automatically if empty.
`hero`	`HeroController`		Found automatically if empty.
`font`	`TMP_FontAsset`		Font.

FIELD	TYPE	DEFAULT	DESCRIPTION
`toggleKey`	`Key`	`Key.E`	
`spawnDistance`	`float`	`7f`	
`pauseWhileOpen`	`bool`	`true`	Pauses the game while the panel is open.

`HealthBarOverlay` UI/HealthBarOverlay.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`height`	`float`	`9f`	
`backgroundColor`	`Color`	`new Color(0f, 0f, 0f, 0.6f)`	
`shieldColor`	`Color`	`new Color(0.4f, 0.8f, 1f)`	
`root`	`RectTransform`		
`fill`	`Image`		
`shield`	`Image`		

`HealthBarTarget` UI/HealthBarTarget.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`offset`	`Vector3`	`new Vector3(0f, 2.2f, 0f)`	
`color`	`Color`	`new Color(0.9f, 0.2f, 0.2f)`	
`width`	`float`	`70f`	
`hideWhenFull`	`bool`	`true`	Only show after the first hit.

`HeroHUD` UI/HeroHUD.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`hero`	`HeroController`		
`healthBar`	`UIBar`		
`expBar`	`UIBar`		
`skillExpBar`	`UIBar`		
`levelText`	`TMPro.TMP_Text`		
`ammoText`	`TMPro.TMP_Text`		
`skillsText`	`TMPro.TMP_Text`		
`chargesText`	`TMPro.TMP_Text`		
`statsText`	`TMPro.TMP_Text`		
`dashCooldownOverlay`	`Image`		Filled image shown over the dash button while on cooldown.

`MobileControls` UI/MobileControls.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`mode`	`Mode`	`Mode.Auto`	
`root`	`GameObject`		

`SkillCard` UI/SkillCard.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`button`	`Button`		
`icon`	`Image`		
`title`	`TMPro.TMP_Text`		
`level`	`TMPro.TMP_Text`		
`description`	`TMPro.TMP_Text`		
`details`	`TMPro.TMP_Text`		
`hotkey`	`TMPro.TMP_Text`		

`SkillSelectionPanel` UI/SkillSelectionPanel.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`hero`	`HeroController`		
`root`	`GameObject`		
`cards`	`SkillCard[]`	`new SkillCard[0]`	
`titleText`	`TMPro.TMP_Text`		
`openAudio`	`RandomAudio`		Sound played by this object.
`pickAudio`	`RandomAudio`		Sound played by this object.
`inputDelay`	`float`	`0.35f`	Seconds of real time before the options accept clicks (avoids accidental picks while attacking).

`StatusEffectBar` UI/StatusEffectBar.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`target`	`StatusEffects`		Found on the hero if empty.
`font`	`TMP_FontAsset`		Font.
`burnIcon`	`Sprite`		
`freezeIcon`	`Sprite`		
`weaknessIcon`	`Sprite`		
`frailtyIcon`	`Sprite`		
`badgeSize`	`Vector2`	`new Vector2(196f, 44f)`	
`spacing`	`float`	`8f`	
`root`	`GameObject`		
`fill`	`RectTransform rect,`		
`fillImage`	`Image strip,`		
`icon`	`RawImage`		
`info`	`TMP_Text title,`		
`shown`	`bool`		
`pop`	`float`		

`UIBar` UI/UIBar.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`fill`	`Image`		

FIELD	TYPE	DEFAULT	DESCRIPTION
`trail`	`Image`		Optional second fill that catches up slowly (shows recent damage).
`label`	`TMPro.TMP_Text`		
`trailSpeed`	`float`	`1.5f`	

▼ Weapons (64 fields)

`HeroProjectile` `Weapons/HeroProjectile.cs`

FIELD	TYPE	DEFAULT	DESCRIPTION
`speed`	`float`	`30f`	
`radius`	`float`	`0.2f`	
`lifetime`	`float`	`3f`	
`hitLayers`	`LayerMask`	`~0`	Solid layers that stop (or bounce) the bullet.
`bulletParticle`	`ParticleSystem`		Effect played here.
`trail`	`TrailRenderer`		
`hitVfx`	`GameObject`		Effect played here.
`launchAudio`	`RandomAudio`		Sound played by this object.
`hitAudio`	`RandomAudio`		Sound played by this object.
`headshotAudio`	`RandomAudio`		Sound played by this object.

`LobProjectile` `Weapons/LobProjectile.cs`

FIELD	TYPE	DEFAULT	DESCRIPTION
`speed`	`float`	`15f`	
`arc`	`Arc`	`Arc.Highest`	
`damage`	`int`	`10`	
`element`	`Element`	`Element.Normal`	
`radius`	`float`	`0.25f`	Hit radius of the projectile itself.
`explodeOnTargets`	`bool`	`true`	Explodes when it touches a target (otherwise it flies through targets and explodes on the ground).
`explosionRadius`	`float`	`2.5f`	Damages every target touching this sphere. 0 = only the target it hits.
`knockback`	`float`	`1f`	
`lifetime`	`float`	`8f`	
`hitLayers`	`LayerMask`	`~0`	Solid layers that stop the projectile.
`elementalHit`	`ElementalHit`	`new ElementalHit()`	
`explosionVfx`	`GameObject`		Effect played here.
`targetMarker`	`GameObject`		Shown on the ground where the projectile will land.
`groundHazard`	`HazardZone`		Spawned on the ground where it explodes (fire field, goo…).
`launchAudio`	`RandomAudio`		Sound played by this object.
`explosionAudio`	`RandomAudio`		Sound played by this object.

`AttackPoint` `Weapons/MeleeHitbox.cs`

FIELD	TYPE	DEFAULT	DESCRIPTION
`root`	`Transform`		
`offset`	`Vector3`		
`radius`	`float`	`0.5f`	
`attackPoints`	`AttackPoint[]`	`new AttackPoint[0]`	
`hitLayers`	`LayerMask`	`~0`	Layers checked by the swing. Leave Everything if unsure (the team check filters allies).
`endAfterFirstHit`	`bool`		
`hitVfx`	`GameObject`		Effect played here.
`hitVfxHeight`	`float`	`0.6f`	
`hitAudio`	`RandomAudio`		Sound played by this object.
`swingAudio`	`RandomAudio`		Sound played by this object.
`swingParticle`	`ParticleSystem`		Effect played here.
`reflectProjectiles`	`bool`		
`DamageProvider`	`Func<Damageable, DamageInfo>`		
`ReflectDamageProvider`	`Func<int>`		

`SimpleProjectile` Weapons/SimpleProjectile.cs

FIELD	TYPE	DEFAULT	DESCRIPTION
`speed`	`float`	`12f`	
`radius`	`float`	`0.15f`	
`lifetime`	`float`	`4f`	
`damage`	`int`	`5`	
`element`	`Element`	`Element.Normal`	
`knockback`	`float`	`0f`	
`canBeReflected`	`bool`	`true`	
`hitLayers`	`LayerMask`	`~0`	Solid layers that stop the projectile.
`elementalHit`	`ElementalHit`	`new ElementalHit()`	Status effect of the element when the projectile deals damage.
`homing`	`bool`		Turns towards the target it was launched at.
`homingTurnSpeed`	`Vector2`	`new Vector2(0.01f, 0.6f)`	Turn speed (radians per second), picked between x and y on launch.
`homingSpeed`	`Vector2`	`new Vector2(0.5f, 9f)`	Cruise speed, picked between x and y on launch.
`homingLaunchSpeed`	`float`	`8f`	Starts at this speed and slows down to the cruise speed.
`homingLaunchDeceleration`	`float`	`3f`	
`lifetimeVariation`	`float`	`0.25f`	
`hitVfx`	`GameObject`		Effect played here.
`launchAudio`	`RandomAudio`		Sound played by this object.
`hitAudio`	`RandomAudio`		Sound played by this object.
`trail`	`TrailRenderer`		

FIELD	TYPE	DEFAULT	DESCRIPTION
`reflectVfx`	`GameObject`		Effect played here.

`SlashEffect` `Weapons/SlashEffect.cs`

FIELD	TYPE	DEFAULT	DESCRIPTION
`hitbox`	`MeleeHitbox`		
`areaRadius`	`float`		0 = visual only.
`areaOffset`	`Vector3`		
`fallbackDuration`	`float`	`0.5f`	Used when there is no Animation component.

DynamoBone

Bone physics for tails, hair, cloth strips and cables. There are no collisions. Chains up to about 32 bones work well. Add **Component > Zeuk Games > Dynamo Bone**, and drag the first bone into **Root**.

FIELD	WHAT IT DOES
Root	First bone of the chain. It stays with the animation, and the bones below it swing.
Update Rate	Simulation steps per second. 0 runs one step per frame.
Damping	Speed the bones lose on each step. Low values swing for longer.
Elasticity	How strongly the bones are pulled back to the animated pose.
Stiffness	How far the bones can leave the animated pose. 1 keeps them on it.
Inertia	How much of the character movement the bones follow directly.
End Length	Adds an extra point after the last bone, as a multiple of its length.
End Offset	Same idea with a fixed offset. Used only when End Length is 0.
Gravity	Force on each step. Keep it small (the default is -0.002 on Y).
External Force	Extra force on each step, such as wind.
Freeze Axis	Keeps the bones from moving along this axis of their parent bone.
Enable Distance Culling	Stops the simulation when the character is far away.
Distance Reference	Distance is measured from here. Empty uses the main camera.
Culling Distance	Distance in meters where the simulation stops.

`SetBlendWeight(float weight)` fades the effect, and `GetBlendWeight()` reads it. The component is under the MIT License.

Prefab reference

FOLDER	PREFABS	USE
`Prefabs/Hero`	Hero	Base of every hero. Copy it with the wizard.
`Prefabs/Managers`	Combat Manager, Combat Camera, Enemy Spawner	Drop in any scene.
`Prefabs/Companions`	Knight Drone, Ranged Drone, Healer Drone	Example companions.
`Prefabs/Enemies/World 1`	11 enemies	See Enemies.
`Prefabs/Enemies/World 2`	10 enemies	Stronger set.

FOLDER	PREFABS	USE
`Prefabs/Enemies`	Training Dummy	Immortal target that shows DPS.
`Prefabs/Projectiles`	Hero, Companions, Enemies	Enemy Bullet variants: Big, Fire, Ice, Weakness, Homing Ice, Homing Thunder. Also Enemy Bomb and Enemy Goo.
`Prefabs/Pickups`	Health, Ammo, EXP	Used by `PickupSettings`.
`Prefabs/VFX`	Combat, Chips, Status, Pickups, Enemies	Effects, including Frozen Solid, Ice Shatter, Fire Field and Acid Puddle.

Data reference

ASSET	WHERE	WHAT IT HOLDS
Skill Database	`Data/Skill Database.asset`	`optionsPerLevelUp` (3), `baseSkillLimit` (6), and every boost.
Chip Library	`Data/Resources/CyberCombatKit Chip Library.asset`	Settings of the 36 default chips and your own chips. Your copy with `projectLibrary` wins over the kit one.
Hero Stats Table	`Data/Hero Stats Table.asset`	100 levels. See Stats and progression.
Sound Library	`Audio/Resources/CyberCombatKit Sound Library.asset`	Master volume, then clips and volume for all 67 sounds.

Create new ones: Assets > Create > Zeuk Games > Cyber Combat Kit, then Sound Library, Chip, Chip Library, Hero Stats Table, Skill Database or Hero Animation Set.

Troubleshooting

PROBLEM	CAUSE	SOLUTION
The kit scripts show as missing, or the wizard doesn't open	The required packages are not installed.	**Tools > Zeuk Games > Cyber Combat Kit > Install Required Packages**.
Pink materials	The materials use URP shaders and the project uses another pipeline.	Install Universal RP and set a URP Asset in **Project Settings > Graphics**, or swap the material shaders for your pipeline.
A model with a shader from another asset is pink in a clean project	Its shader is not in the project.	Copy the shader too.
The hero falls through the ground	No collider, or the layers don't collide.	Add a collider, and check **Project Settings > Physics > Layer Collision Matrix**. The Scene tab checks it.
Enemies or companions don't move	No NavMesh, or the level changed.	Bake again in the Scene tab or the Hierarchy menu.
No keyboard or gamepad input	Active Input Handling is wrong.	Set "Input System Package" or "Both" in the Project tab.
Menus can't be clicked	No EventSystem, or it uses the old module.	**Check Setup** adds it. Use Input System UI Input Module.
The game is silent	The kit ships without audio files.	Add your clips in the Sound Library.
A new hero's weapon points backwards	The model axis differs.	Enable **Flip** in the Hero tab and create the hero again.
No boost cards after a while	The run reached its pick limit.	Normal. See Stats and progression.
F1 to F4 do nothing	Release build, or `Debug Tools` is off.	Normal in release builds.
Ammo never drops	Capacity is 0.	Normal with Super Charged Sword.
The ENEMIES button is missing in my scene	The test panel exists only in the demo.	Use `EnemySpawner` or your own UI.

FAQ

Do I need to code?

No, to set up a fight, create characters, boosts, chips and effects. Yes, to add a save system, a shop or new attack types.

Can I use my own character?

Yes, any humanoid model. Drag it into the Hero tab. Weapons and effects move to the same bones.

Does it work with Built-in or HDRP?

Yes, after you swap the shaders. The kit is made for URP and its materials use URP shaders. In Built-in or HDRP they show pink until you change them.

Does it include sound?

No. Add your clips in the Sound Library. Every sound is already wired.

Is the source code included?

Yes. All C#, with separate assemblies and namespaces.

Does it work on mobile?

Yes. Touch controls are included, and this combat system runs on phones in Cyberhero Legends, our Android game. Test on your target devices too.

Does it save progress?

No. The documentation lists what to save and how to restore it.

Can I change the camera?

The kit ships a fixed-angle top-down camera. The offset is a field you can change. Enemy and aim logic works on the ground plane, so test other views.

Will updates overwrite my work?

Things you create go to Assets/My Combat Kit, outside the kit folder.

Which Unity version?

Made and tested on Unity 6000.6.

Glossary

- **Aura:** a boost that damages enemies around the hero. One per run.
- **Boost:** a level up card.
- **Charge:** a stored special attack, from the Charging Core chip.
- **Chip:** equipment for one of 9 slots.
- **Hit stop:** a short freeze of the hero animation on a sword hit.
- **Intensity:** push distance of a hit, in meters.
- **Skill EXP:** the bar that gives boost picks.
- **Stagger:** a short stop of an enemy after a hit.
- **Telegraph:** the warning before an enemy attack.
- **Wave:** a group of enemies from `EnemySpawner`.

Known limitations

- Steel Body level 1 has 0% damage reduction. It only stops interruptions.
- Item Drop Boost (the chip) and Loot Drop Boost only affect ammo, because there is no other item.
- The `Enemy Spawner` prefab only brings the 11 enemies of World 1.
- The test panel exists only in the demo scene. **Set Up Scene** does not add it.
- The Healer Drone also shoots, and that damage does not grow with its stats.
- With plasma chips, only the elemental part of a bullet carries a headshot.
- The animator parameters VerticalSpeed, CycleOffset, HasCombo2 and HasCombo3 aren't written by any script. They stay at their default values.
- `EnemyAI` fields like `attackRange` and `attackCooldown` only count without an `EnemyBehaviour`. All 21 enemies have one.
- `Damageable.isBoss` exists, with no boss bar and no boss prefab.
- Made for URP. Built-in and HDRP need the material shaders swapped.

Support

Questions, bugs and requests: therealzeuk@gmail.com. Tell us your Unity version, what you did, what you expected and what happened. Open **Check Setup** first: it solves most setup problems.