# **HQ FPS Weapons**

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#### Get Started:

• These are all of the prefabs that you need to have in your scene for the asset to function:

HQ FPS Weapons Pack Vol.1	
🔻 📾 _Prefabs	
Core	
😭 _GameManager	
😭 BasicSceneSetup	
🎁 GameUI	
😭 Player	

• If the trees are not looking good, replace these shaders with the ones from *CTI\_ConiferBOTD* 

Audio	Graphics			0
iditor	Reflection Probes Bo			
nput Manager Physics				
Physics 2D				
Plaver				
Preset Manager				
Quality Script Execution Order				
Tags and Lavers				
FextMesh Pro				
ſime				
/FX				
(R Plugin Management				
	Built-in Shader Settings			
	Deferred	Custom shader		
	Shader	Hidden/CTI/Internal-Defe	rredShading	
	Deferred Reflections			
	Shader	Hidden/CTI/Internal-DeferredReflections		
	Legacy Deferred	Built-in shader		
	Screen Space Shadows	Built-in shader		
	Depth Normals	Built-in shader		
	Motion Vectors	Built-in shader		
	Light Halo	Built-in shader		
	Lens Flare	Built-in shader		
<ul> <li>HQ FPS Weapons</li> <li>GetStarted</li> <li>Prefabs</li> <li>Animation</li> <li>Audio</li> <li>Effects</li> <li>Meshes</li> <li>Misc</li> <li>ConiferBOTD</li> <li>CTI Runtime Compore</li> <li>Default Componer</li> <li>Resources</li> <li>CTL Camera-Definition</li> </ul>				
S CTI_Internal-De	ferredReflections			

# Structure (some parts are outdated, the whole documentation is getting overhauled for update 1.2.2)

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## **Project Structure:**

## PREFABS:

## 1. !Core...

- Game Manager: Contains things like Player Input, Surface Manager, Pooling Manager etc.

- **Basic Scene Setup:** Contains 2 Post Processing Volumes and a Directional Light (Place it in your scene if you don't have any Post Processing Volumes).

- Game UI: Contains Every Piece of UI, from the Pause Menu to the HUD.

- **Player:** Player Prefab. (Everything included Weapons, Inventory, Cameras etc.)

## 2. Ammunition...

- **Casings**: Casings that are spawned from the weapons after shooting. First Person Cartridges: These Prefabs are the visible cartridges used for the guns.

- First Person Cartridges: These Prefabs are the cartridges visible in the gun. Gun Parts Corrector spawns them immediately after playing the game. That script disables the visible cartridges if the magazine is empty, the Player will be able to see that when empty reloading.

Script		unPartsCorrec	tor 🤅
Cartridge Co		in anoon o	
Cartriage of	meator		
	GENER	AL	
Cartridge C	hange Me D	isable Whole	Car≖
Change Ca	rtridge Wh 🗸		
Cartridge P	refab 🔋	Cartridge_7.6	62x ⊙
Fake Extra	Cartridges 🗸		
Bullet Posit	ions		
Delays			
A	lay 0.	.65	
Cassing De			
Cassing De Cartridge D	elay 1		

- **Pickups:** Contains all the Ammo Pickups. (Bullets, Magazines, Clips, Boxes etc.)

- Projectiles: These are the non-Raycast Projectiles. (e.g Flare)

# 3. Effects...

All The effects in this project from Surface Effects (e.g. **Decals**) to Weapon Effects (e.g. **Muzzle Flash**).

4. Environment...

Contains all of the "Firing Range" map modular parts.

### 5. First Person...

Arms & Accessories that the "**Equipment Manager**" cycles through if you press the "Change Arms" button.

6. Others...

Extra prefabs that you can use, e.g. Item Spawner, Crates.

7. Weapon Pickups...

All of the weapon pickups. (**Note**: the **explosive grenade** & the **molotov** pickups is the same as the thrown object)

- **ANIMATION:** All of the animations (except for first person ones) and animators.
- <u>AUDIO</u>: All of the **Sound Effects** in the asset (e.g. shoot, foley, weapon handling etc.)
- **EFFECTS:** All of the materials & textures that the Particle Systems use. (e.g. **Muzzle Flashes** textures **&** materials)
- **MESHES:** Contains all of the Meshes(e.g. weapons, arms, ammo, map pieces etc.) and the **first-person weapon animations**.
- **SCRIPTS:** All of the animations (except for the weapons) and animators.

**SHADERS:** All of the shaders used this asset.

**SPRITES:** All of the **sprites** used in this asset. (e.g. **HUD** elements, Panels etc.)

#### **Player Components Explained:**

Player >	The span open of select	ortenideo
View	🕞 📩 Transform	0 ‡ :
👻 😭 _Equipment	🕨 🔮 🛩 Character Controller	0 ⊉ :
► 🗘 Revolver ► 🗘 M1911	🕞 📢 🖌 Audio Source	0 ‡ i
► S MP5	🕨 🗰 🗹 Player (Script)	07‡ :
► Q F1	🕨 # 🖌 Player Input_PC (Script	) ❷‡:
► 🗘 AKM ► 🗘 M1A	🕨 # 🗹 Player Movement (Scrip	ot) 697≓∔
► 🔆 R870	🕒 # 🗹 Player Interaction (Scri	pt) OF‡ i
Ouble Barrel Shotgun	🕨 🗰 🖌 Player Vitals (Script)	0 ‡ :
Grossbow	# Player Death (Script)	0 ‡ :
Flore Gun	🕨 🗰 🔽 Player Footsteps (Scrip	ot) ❷≓:
<ul> <li>Gombat Knife</li> <li>Old Fire Axe</li> </ul>	🕨 🗰 Inventory (Script)	0 7 1
Good Repaid     Saseball Bat     Good Repaid     Saseball Bat     Good Repaid     Saseball Bat	Add Componen	it
<ul> <li>Imaginetizate</li> <li>Molotov Cocktall</li> <li>Imaginetizate</li> <li>Imaginetizate</li> </ul>		

→ The Player script handles all of the events that the Player takes place in such as running, crouching, using equipment item etc.





Note: the "attempts, values & activities are just "custom" events.

→ The Player Input\_PC script handles all of the input for the Player. (e.g. pressing the use button starts the "use" event on Player)



→ The Player Movement script moves the Player through space by controlling the "Character Controller".

# 🗹 Player Moveme	nt (Script)	0 ‡ :
Script	PlayerMovement	
Controller	🕄 Player (Character Cor	ntroller) 💿
Obstacle Check Mask	Mixed	~
Core Movement		
Acceleration		10
Damping		8
Airborne Control		0.15
Step Length		1.3
Forward Speed		2.6
Back Speed		2.25
Side Speed		2.6
Slope Speed Mult		
Anti Bump Factor	0.2	
Running		
Enable Running	2	
Run Speed		5
Run Step Length		1.75

{	
	ableRunning    Time.time < m_NextTimeCanRun    Player.Stamina.Get() < 15f) n false;
bool want	<pre>sToMoveBack = Player.MoveInput.Get().y &lt; 0f;</pre>
return Pl }	ayer.IsGrounded.Get() && !wantsToMoveBack && !Player.Crouch.Active && !Player.Aim.Active;
1reference private bool	TryJump()
{	
	uched, stop crouching first
IT (Playe	r.Crouch.Active)
	r.Crouch.TryStop(); n false;

→ The **Player Interaction script** checks for interactable objects that are near the Player and in the "Max Interaction Angle".



→ The Player Vitals script contains all the data for Health, Damage Resistance, Stamina, etc.

🐨 # 🗹 Player Vitals (Sc	ript)	0	ᅷ	
Script ▶ Damage Resistance	PlayerVitals			
Health & Damage				
Max Health	100			
Health Regeneration				
Audio				
Audio Source	📢 Player (Audio Source)			0
Fall Damage				
Min Fall Speed	•-	- 13	3	
Max Fall Speed		2	5.5	
Audio				
► Hurt Audio				
Time Between Screams	1			
Fall Damage Audio				
Animation				

→ The **Player Death script** handles the Respawn and the Behaviours that'll get disabled if the Player dies (e.g. it disable the Player Movement Script).

🔻 📕 🛛 Player Death (Sc	ript)	0	ᅷ	
Script	PlayerDeath			
Camera	😨 View			۲
Audio				
Audio Source	Player (Audio Source)			$\odot$
▷ Death Audio				
Stuff To Disable On Dea	ath			
▷ Objects To Disable				
Behaviours To Disable				
Colliders To Disable				
Respawn				
Auto Respawn	×			
Respawn Duration	3			
Respawn Block Time	3			

→ The **Player Footsteps script** plays the corresponding footstep sounds if the Player moved enough.

🔻 # 🖌 Player Footsteps	(Script)	07‡ :
Script	PlayerFootsteps	
Ground Mask	Default	-
Raycast Distance	•	0.3
Fall Impact Threeshold	•	3
Walk Volume		1
Crouch Volume	•	0.5
Run Volume		1

→ The **Inventory script** contains all of the data for the current Player Items (e.g. weapons, ammo, heals etc.)

You can also change the "Initial Containers" to make the Player spawn with items already in their inventory.

🔻 🗰 Inve	ntory (Scrip	ot)			9 7	Ŀ	
Script		Inventor	ý.				
Storage							
Initial Conta	iners						
Item Drop							
Drop Items	On Death	~					
Drop Sound	ls						
Drop Delay		•			0.0	5	
Drop Offset		X 0	Y 1	Z 1			
Drop Angula	ar Factor	15					
Drop Speed	li -	2					
Walls Layer		Default					•

## Player Camera Explained:

→ View has the "Mouse Look" component attached to it, here you can control the mouse sensitivity or invert the mouse look.

🔻 🍟 Player 🛛 💦 🔪	r ansioni			*	- 33
🚽 👻 🖓 View	🔻 🗰 🖌 Mouse Look (S	Script)	0	구는 구는	
FirstPersonCamera		MouseLook			
VorldCamera_ROOT		General			
WorldCamera  SCENE	Look Root	🙏 View (Transform)			$\odot$
A BasicSceneSetup	Player Root	APlayer (Transform)			
Pickups	Invert				
Map TemSpawner	Motion				
	Sensitivity	3			
	Aim Sensitivity	2			
	Roll Angle	0			
	Roll Speed	0			
	Rotation Limits				
	Default Look Limits	X -70 Y 80			
	🕨 # 🜌 Root Height H	andler (Script)	0	÷	
		Add Component			

→ This asset, as of right now, uses a dual camera setup, which means that the weapons are rendered on a different camera than the rest of the world, so that they don't clip in objects and can have their own FOV.

#### ---- First Person Camera: ----

⊤ 💬 View	🔻 💷 🖌 Camera		0 ≓ :
Grand Content Conte	Clear Flags	Depth only	
► 🖓 WorldCamera_ROOT	Culling Mask	First Person	
💮 SCENE	Projection	Perspective	
BasicSceneSetup Pickups	FOV Axis	Vertical	
Map	Field of View		38

#### ---- World Camera: ----

		~ .	
🗉 💮 View	🔻 💷 🖌 Camera		0 ‡ :
<ul> <li>Grading Leguipment</li> <li>FirstPersonCamera</li> </ul>	Clear Flags	Skybox	•
VorldCamera_ROOT	Background		1
😭 WorldCamera	Culling Mask	Mixed	-
<ul> <li>SCENE</li> <li>BasicSceneSetup</li> <li>Pickups</li> </ul>	Projection FOV Axis	Perspective Vertical	
💮 Map 🍞 ItemSpawner	Field of View Physical Camera		85
	<b>Clipping Planes</b>	Near 0.01	
		Far 1000	
	the second se		

→ The First Person Camera Script It's used to move the camera with spring-based procedural animations, things like walk Head bobs, run Head bobs, grenade explosion cam shakes can be tweaked here.

Player	>				
View		🔻 🗰 🖌 First Per	rson Camera (Script)	<b>9</b> ‡	
Generation     Generation     Generation     Generation     Generation     Generation		Script	FirstPersonCamera		
WorldCamera_ROOT     SCENE			General		
BasicSceneSetup		Camera	WorldCamera (Camera)		۲
l Pickups		Player	Player (Player)		0
l Map LitemSpawner	×	Springs			
		Headbobs			
		Cam Shakes			
		Fall Impact			
		Jump Force			
		Getting Hit Fo	rce		
		n 🗸 Audio Li	stener	Ø ‡	

## Weapon Components Explained:

→ The **Equipment Manager** It's the one who controls the weapon equipping, switching, aiming and a few other things.



→ The Equipment Physics It's the place where you define the procedural animations for a weapon (e.g. running, walking, aiming etc.). It's using a spring system, the same as the camera movement.



- → The Equipment Animation component It's where you assign the animations for each weapon. (Note: every weapon type has a different controller,
  - "\_ProjectileBasedWeapon"(Used for every Gun), "\_MeleeWeapon", etc.)

View	🕒 # 🖌 Equipment	Physics (Script)	0	ᅷ	1
Carl Content	🔻 # Equipment	Animation (Script)	0	ᅷ	
> 12 Revolvar > 12 M1911 > 13 MP5		EquipmentAnimation			
PD F1 PD AKM	Controller	L_ProjectileBasedWeapon			۲
- 🕀 M1A - 🕅 R670	Original	Override			
Double Barrel Shotgun	Draw	▲_MP5_Draw		1	•
🔀 Hunting Rifle	Holster	_MP5_Holster		4	0
Grossbow	Fire	▲_MP5_Fire		4	0
💬 Flare Gan	FireAim	_MP5_AimFire		1.0	•
Combat Knife	FireDry	None (Animation Clip)		10	•
Old Fire Axe	Hold	_MP5_Hold		3	0
Grag Grenade	ldle	_MP5_Idle		\$	0
Molotov Cocktail	Reload	_MP5_Reload			•
Rashlight	ReloadStart	None (Animation Clip)		10	•
O Syringe	ReloadEnd	<ul> <li>None (Animation Clip)</li> </ul>		4	0
FirstPersonCamera WorldCamera_ROOT	ReloadEmpty	None (Animation Clip)		4	0



→ The Gun, Melee Weapon, Launcher Weapon, Tool, Throwing Weapon and Heal Item are all a type of Equipment Item with their own features. (e.g. reloading for guns & launchers, fire modes, swings for melee weapons etc.)

🛯 # 🗹 Gun (Script)	07 ‡ i			_	
Script 🔹 Gun	⊙	🔻 # 🗹 Melee V	Weapon (Script)	<b>9</b> ‡	
EQUIPMENT ITEM SETTINGS		Script	MeleeWeapon		
General Settings		EQ	UIPMENT ITEM SETTINGS		
Arms Settings		General Setti	ngs		
Base Animation		Arms Setting	s		
Base Audio		and a second			
Base Camera		Base Animati	on		
Ammo		Base Audio			
PROJECTILE WEAPON SETTINGS		Base Camera			
Fire Mode		1 ASSESSOR			
Reload Settings		Ammo			
Gun Recoil			MELEE WEAPON		
Camera Recoil		Melee Weapo	on Settings		
Fire Cam Shake		SWINGS			
Camera Forces		Swing Selectio	n Sequence		
Gun Audio		⊳ Swings			
GUN SETTINGS					
Shooting		-	Add Component		

"**Equipment Item Settings**" has all of the generic settings that each first person item should have: corresponding item, if aiming is enabled, if it uses some kind of ammo, etc.

EQUIPMENT I	TEM SETTING	S	Base Animation	
General Settings			AND RECEIPTION AND REAL OF	
Corresponding Item	Assault Rifle	e/M1A 🔫	Base Audio	
Field Of View	-0	- 38	Base Camera	
Enable Aiming	~			
Enable Aim FOV	~		Ammo	
Use Aim Blur	~			
Use While Airborne			Need Ammo To Use	1
Can Stop Reloading				
Stamina Take Per Us	•	- 0	Ammo Item	Ammunition/7.62×51r-
			Magazine Size	15
Arms Settings			Storage Size	90

## **Player UI Components Explained:**

#### → UI Manager:

🕞 📬 GameUl	>	Prefab	Open	Select	Overrides		
► ♥ Player ♥ SCENE	2 I	4	Transform		6	차	
▶ ∯ BasicSceneSetup	1	# 2	UI Manage	r (Script)	6	キ	
▶ 🕤 Pickups ▶ 🕥 Map		Script		UIMan	ager		
🕨 🛜 ItemSpawner	2			SETUP			
		Canva	as	≣Canva	s (Canvas)		$\odot$
		Font		<b>A</b> ≊Weapo	onsKIT		$\odot$
		ltem V	Nheel Key	Q			
			A	dd Compone	nt		

 $\rightarrow$  Panels:



#### • Pause Menu pauses the game and can select map

C _Event System	Rect Transfor	m	. <del>В</del>	₩.S	
💮 Canvas	🔻 # 🖌 Pause Menu (	Script)	0	7	
Panels Pause Menu	Script	🛙 PauseMenu			
T Panel	Panel	Panel (Panel)		6	۲
T MapSelection	Map Selection Panel	MapSelection (P	anel)	6	Э
	Use Key To Pause 🖌				
	Pause Key	Escape		ž	•
🗸 💮 Panel	Add	Component	1		

#### • Weapon Wheel is used to select items.

🕨 😭 Pause Menu			444 C	8 WA
- 💮 ItemWheel	i i	🔻 # 🗹 Item Wheel	(Script) 0 5	± 1
r 💮 HUD 💮 Screen Fader		Script	ItemWheel	
			GENERAL	
Player Vitals One mage		Panel	🗈 ItemWheel (Panel)	۲
► 🗑 Crosshairs		Wheel Arrow	:: WheelArrow (Rect Tran	ist 🖸
►		Container Name	Holster	
F 🙀 Message Displayer		Sensitivity	3	
WeaponProperties		Range	2	
J UI Camera		Description Text	ItemDescription (Text)	$\odot$
Player	×	Item Name Text	ItemName (Text)	0
SCENE BasicSceneSetup		Slot Positioning		
Pickups		Radial Spacing	45	
Мар		Radial Distance	255	
temSpawner	>	Radial Offset	90	

#### → HUD:

- 1. Screen Fader (Fades in the screen when starting the game)
- **2. Instructions** (The instructions text in the top right, can be deleted without any side effects)
- 3. Player Vitals (Shows the current amount of Health & Stamina of the Player)
- **4. Damage** (Fades in a Blood screen and damage indicators if the player took damage)



- 5. Crosshairs (Set a custom crosshair width, size, etc. for each weapon)
- **6. Interaction** (Interaction panel that appears when the Player is looking at a interactable item (e.g. Item Pickup, buttons etc.).
- **7. Message Displayer** (Displays a message to the screen, e.g. Player has picked up "x" item or "Inventory Full").
- **8. Weapon Properties** (Displays the current amount of ammo, the currently selected fire mode and related things).
- **9. Heals Displayer** (Displays the amount of heals the Player has and related Healing things)

## Pickups Explained:

→ Item Pickup:



- 1. Interaction Text (Name of the Pickup)
- **2.** Item (What item is going to be added to the Player Inventory if It's picked up).
- **3. Target Containers** (Where in the inventory will this item be added, e.g. Weapons should be added in the "**Hotbar**", ammo in "**AmmoPouch**" and heals in "**Storage**".

#### How to use the Item Management:

1. To access the **item management** settings go here:



2. Here you can add your own **items** or modify the ones that are already in the asset:

					x
Database path: 'Assets/HQ FPS \	Weapons Pack Vol.1/Resou	rces/Items/Item Database.a	asset		Shift + D to duplicate Delete to delete
Item	Editor			Property Editor	
			Crossbow		
Crossbow			Name	Crossbow	
Clear		+ -			
				Select	
			World Object	Pickup_Crossbow	
			Stack Size		
			Only One Stack Allow	ed	
			Descriptions		
			Value: 1		+ -
Melee Weapon					
Tool					
Throwing Weapon					
Handgun					
Bow					
Ammunition					
Healing Item					
Assault Rifle					
SMG					
Shotqun					
Sniper Rifle					
Special					
Clear		+ -			

To add an item you'll need to select/create a category from the bottom then press "+" button at the top.

Crossbow		
Clear	+	-

From there you can modify It's properties (name, icon, description etc.) in the right side of the window. You can also add custom properties, such as "ammo", durability etc.

#### How to use the surface decals system:

1. To access the surface management settings go here:



Here you can select from all of the surfaces available (e.g. Concrete, Metal and Wood). After that you can change/add your own sound effects, particle System prefabs (e.g. bullet decal).

cript Registered Textures Size				
Registered Textures		Concrete		
	SurfaceInfo			
	3			
Element 0	FiringRange_Concrete	Valls		C
Element 1 Element 2	FiringRange_Floor01			C
	FiringRange_Floor02			e
Soft Footstep Effect				
T Clips				
	# Footstep_Cor			
Element 1	Footstep_Con			
Element 2 Element 3	# Footstep_Cor			
Element 3	# Footstep_Cor			
Element 5	Footstep_Col			
Element 6	Footstep_Co			
Element 7	# Footstep_Co			
	Win ootstep_oot	iciele oo		+ -
Volume Range	0.5			0.75
Pitch Range	0.9		<b></b> >	
Volume Multiplier				
Visual Effect	None (Game Object)			
Hard Footstep Effect				
Fall Impact Effect				
Bullet Hit Effect				
∀ Audio Effect				
⊤ Clips				
	BulletImpact			
Element 1	Bulletimpact			
Element 2	BulletImpact			
	# BulletImpact	Concrete04		
Volume Range	0.5			▶ - 0.75
Pitch Range	0.9			1,1
Volume Multiplier				0.5

# How to change the Damage Of a Gun:

# 🖌 Gun (Script)		0 ∓ :
Script	🖬 Gun	
EQUIPMENT	ITEM SETTIN	IGS
General Settings		
Arms Settings		
Base Animation		
Base Audio		
Base Camera		
Ammo		
PROJECTILE V	VEAPON SET	TINGS
Fire Mode		
Reload Settings		
Gun Recoil		
Camera Recoil		
Fire Cam Shake		
Camera Forces		
Gun Audio		
GUN	SETTINGS	
Shooting		
General Settings		
Mask	Default	
Max Distance	150	
Ray Count		- 8
TRay Impact		
Max Damage	•	- 15
Max Impulse	•	- 8
Distance Curve		
Aim Threeshold	-0-	0.25