Star Fighter Controller

Set up Starfighter with a custom model:

- Create an empty game object and add the *Ship Controller* script and a *Rigidbody* component. Rename the game object to *StarFighter* and apply the "*Player"* tag.
- Add your custom ship model as a child of *StarFighter*, and drag and drop the model's transform from the hierarchy to the *graphic* variable in the *Ship Controller* component. Ensure that the model is rotated correctly. The *StarFighter*'s Z axis (blue arrow) is it's forward.
- Parent the Main Camera to *StarFighter.* In the Ship Controller component, set the Camera Rest Position vector. This is the position the camera will occupy, relative to the *StarFighter.*
- Fill in the *ShipController's* variables as desired. Refer to the demo scene or the tables below for help.

Set up the UI:

- By default the controller uses two standard UI images and one text. Create two UI Images and one UI Text. A canvas will automatically be added to the scene.
- Rename the images: *"reticleFar"* and *"reticleClose"*, and rename the text *"ArmourDisplay"*.
- Position *ArmourDisplay* on the Canvas to your liking. *ReticleFar* and *reticleClose* do not need to be positioned.
- Assign the UI elements to their respective slots in the *Ship Controller* component.

Set up weapons:

- Create an empty game object and rename it *"Weapon"*. Add the *WeaponScript* component.
- Parent the weapon to the ship model and position the *Weapon* game object to wherever the projectiles should spawn.
- Fill in the *WeaponScript*'s variables as desired. Refer to the demo scene or the tables below for help.

Set up turrets:

- Add your turret models into the scene. There should be two meshes:
  - The Base – The turret stand. This mesh will not move.
  - The Turret – This is the mesh that will rotate to face the target.
- Parent the *Turret* to the *Base* and add the *TurretScript* to the *Base* game object. Also add a collider and apply the *"Enemy"* tag.
- Add the drag and drop the *Turret* object into the *Turret* slot of the *TurretScript*.
- (Optional) Add the particle effect as a child of the *Base*, deactivate it in the hierarchy and drag and drop it into the *DeathEffect* slot of the *TurretScript*.
- Fill in the remaining variables as needed. Refer to the demo scene or the tables below for help.

Set up projectiles:

- Create an empty game object and rename it *"Bullet"*. Add a *Collider*, a *Rigidbody* and the *BulletScript*.
- (Optional) To create a trail effect for the bullet, create an empty game object, rename it *"Trail"* and add it as a child to the *Bullet* object. Add a trail renderer to this object and drag and drop it from the hierarchy to the Trail slot in the *BulletScript* component.

- Fill in the remaining variables as needed. Refer to the demo scene or the tables below for help.

Ship Controller

Variable	**Use**
Cam	Main camera.
Graphic	The ship's mesh object.
Cam Rest Pos	The camera's position in the game world, relative to the player.
Cam Speed	The speed the camera rotates and moves.
Forward Speed	Ship's speed.
Boost Speed	Ship's speed during boosting.
Brake Speed	Ship's speed during braking.
Acceleration	How fast the ship changes speed.
Roll Speed	How quickly the ship graphic will rotate when turning.
Dodge Roll Speed	How fast the graphic rotates during a dodge roll.
Dodge Force	How fast the ship moves during a roll.
Dodge Time	Length of dodge in seconds.
Dodge Cooldown	Time in seconds between dodges.
Fov	Camera field of view.
Boost Fov	Camera field of view during boosting.
Reticle Far	UI image for the far target reticle.
Reticle Close	UI image for the close target reticle.
Armour Txt	Heath UI object.
Sensitivity	Player's input sensitivity for steering the ship.
Armour	The player's health.
Armour Max	Maximum armour.

Weapon Script

Variable	**Use**
Can Shoot	Whether or not the weapon can shoot.
Spread	How accurate the weapon is. Lower is more accurate.
Shot Cool	The delay between shots in seconds.
Shake	How much the screen will shake when shooting.

	Zero is none.
Projectile	The game object to be instanced when shooting. This object must have a rigidbody.
ProjSpeed	Speed of the projectile. This should be higher than the player's movement speed.
ShotCount	The number of projectiles to spawn per shot.
ShotSnd	Audio clip to be played when shooting.

Turret Script

Variable	**Use**
Target	Turret's target.
Proj	Projectile the turret fires.
Proj Speed	Speed of the projectile.
Cooldown	Time in seconds between shots.
Shot Count	Amount of projectiles fired per shot.
Spread	How accurate the turret is. Lower is more accurate.
Range	The turret's range. When the target is this closer or less the turret will begin to fire.
Rotate Speed	Speed at which the turret rotates.
Turret	The turret graphic. This is the part that will rotate to face the target.
Death Effect	Effect activated on the turret's death.
Hp Max	Maximum health.
Hp	Health.
Shot Snd	Sound played when a shot is fired.
Scene Mask	The layers that will obstruct the turret's view. The player objects layer should not be included.

Bullet Script

Variable	**Use**
Trail	Game object that holds the trail renderer.
Damage	Damage applied to the object the projectile collides with.
ImpactGFX	Effect game object created on impact.
Hit Enemy	Whether or not damage is applied to objects with the tag *“Enemy”.*

Hit Player	Whether or not damage is applied to objects with the tag *“Player”.*
Explosive	If true, the projectile will get all colliders within the radius and apply damage to all of them.
Radius	Radius of the explosion. Only applies if *Explosive* is checked true.

All scripts a commented to be easily understandable. For any further questions, contact the developer at *blacklight28@gmail.com*.