To do

* Fix aim assist being stuck ()
* Create a scene – maybe something like an inside shooting range?
* Make shooting go in a visible straight line (didn’t get help)
* When enemy is shot at, show damage (Done)
* Fix weapon switch (Done)
* Fix UI menu not being interactive
* Add options to UI menu:
  + Allow infinity ammo (Done)
  + Restart scene when player dies and/or option to restart scene on demand (Player currently can’t die since the enemy doesn’t attack)
  + Consider option to mute / change of volume of music
  + Consider quit option (it’s just a demonstration for a type of aim assist so either alt+f4 or alt tab to close windows)
* Fix enemy floating on floor and intermittently disappearing when dead
* Consider making enemies HP bar more realistic, for example, a headshot should mean a kill? Any shots above the waist maybe 50% damage and any below maybe 25%? (changed to 40 dmg for a headshot, 20 dmg to rest of body)

Checklist:

1. **🎯 Concept & Planning**

✅Define game objective (e.g., shoot targets, track enemies)

✅Choose camera perspective (3rd-person)

❌Identify the type of aim assist (snap-to, slow-down, magnetic, soft lock) <- wanted one of these but currently it’s set to hard lock

✅Decide on player input method (mouse/keyboard)

❌Sketch a simple level or arena layout (currently it’s just a plane)  
❌ skybox (Fantasy Skybox)

✅Pick your game engine (Unity)

1. **🎮 Player & Controls**

✅(V-Roid) Create a player character (Done)

✅Add movement WASD (Done)

✅Add aiming controls mouse (Done)

✅ Implement firing/shooting system (Done)

✅ player health bar (Done even though they cant take damage)

❌

1. **🧠 Aim Assist System**

✅ Detect nearby targets (Done)

✅ Calculate closest target to crosshair (Done)

✅Apply assist logic:

✅Snap to target (Done)

❌Slow down crosshair near target (what I said before)

❌Gradual pull toward target (what I said before)

❌Toggle aim assist on/off (optional for testing)

✅Visual feedback for when aim assist is active (less of visual feedback more of visual indication the Crosshair turns red, but done)

1. **🎯 Targets/Enemies**

✅Add target objects or enemies

✅Set up target hit detection

✅ Add health/destroy logic

✅ Animate or (move targets when detecting the player)  
❌

1. **🧪 Testing & Balancing**

❌Test aim assist with different input speeds

❌Adjust aim radius and assist strength

1. **🖼️ UI & Feedback**

✅ Add a crosshair or aiming

❌Add score or hit indicators

✅ Add aim assist toggle in UI (for demo/testing) sort of there

✅ Optional: Add tutorial or instructions (is included at the top of this word document)

1. **💡 Polish**

❌Add sounds (✅gunfire, hit confirmation)

✅ Add visual effects (muzzle flash, hit spark)

Add animations if using characters

✅ Add background music or ambience

1. **Bug fixing**

✅ Enemy character floating (check in script to see if the enemy is grounded)  
❌ Ragdoll (mostly works fine unless the head hp reaches 0 then there’s a chance for a broken ragdoll)

❌player can climb on top of enemy

1. **📦 Build & Submission**

❌Export build for target platform (PC, WebGL, etc.)

❌Record gameplay video (if required)

❌Create presentation poster

❌Submit all required files to your university's system

Help from:   
VRoid Studio (anime character creator did not download any models used base without clothes)

<https://vroid.pixiv.help/hc/en-us/articles/900005965706-How-to-edit-hair-color-and-texture-material> for hair.

Reforge Mode (youtube) for his tutorial on plugins/importing

Mixamo animations for most of this

Blender for adding thumbs to ADS/HipFire to fix hands

Unity  
unity asset store, fantasy skybox: <https://assetstore.unity.com/packages/2d/textures-materials/sky/fantasy-skybox-free-18353>

Sound:

* <https://www.youtube.com/shorts/ZvZmiCG_Ql0/>
* <https://drive.google.com/file/d/1Tm7oFrICnoZPj225xu8il9tyP9q-FrHy/view/>

Ignore Blender Help that was for a previous anime girl (head went terribly wrong)

The image in question:

A computer screen shot of a cartoon head

AI-generated content may be incorrect.  
Ctrl+shift+T drags in all materials from adobe substance painter

Shift+N flips face.

More to be added…