R&D Game: Caius Fate Instructions

# Step 1: Arduino code

Upload Arduino code to the corresponding Microcontroller

The code can be found in the folder ArduinoCode

* Upload the GearControllerArduino code to an esp32 that should be placed inside the gear controller.
* Upload the ButtonCode to a microcontroller that is connected with the button
* (Optional) Upload the LEDStrip code to an arduino that has a 5v output

# Step 2: Connect the WII remote via Bluetooth

Follow the steps from this tutorial video

Don’t forget to power the lightbar using a 5v source

# Step 3: Start the hand gesture controller

## Activate the hand gesture control server without led strip:

**Assets 🡪 Scripts 🡪 GestureCameraControl 🡪 Hand 🡪** **Camera\_algorithm\_HandServer.py**

## Activate the hand gesture control server with led strip:

**Assets 🡪 Scripts 🡪 GestureCameraControl 🡪 Hand 🡪** **Camera\_algorithm\_HandServerArduino.py**

Open the script and config the comport of the LED microcontroller.

# Step 4: Unity setup

Open Unity and go to the scene folder

**Assets 🡪 Scene 🡪 MainGame**

Here, You need to config the COM ports for all the tangibles

**Level1:**

Tangibles game object:

* ButtonSection 🡪 ButtonInput 🡪 Port Name
* GearSection 🡪 GearInput 🡪 Port Name

**Level2:**

* GearSection 🡪 GearInput 🡪 Port Name

**MainGame 1:** text

* ButtonSection 🡪 ButtonInput 🡪 Port Name
* GearSection 🡪 GearInput 🡪 Port Name

The main controller should be plug and play

When this is done, you are good to go and play the game

You can find the stl files for the button and WII controller in the 3dPrint folder.