1. Open a command prompt terminal, if you already have the repo cloned then just cd into that directory and **skip to step 3**. If not, cd into the directory where you want the project to be cloned
2. Run the following: git clone https://github.com/180D-FW-2021/Team4
3. Run the following: cd Team4
4. Run the following: cd controller
5. Make sure you have miniconda installed
6. Run the following: conda create -n yourenvnamehere python=3.9
7. Run the following: conda activate yourenvnamehere where yourenvnamehere is the environment name you chose in the previous step
8. Run the following: pip install mediapipe==0.8.4
9. In a new command prompt terminal window, run the following to find your bluetooth MAC address: ipconfig /all
   You should see part of the output like the following:


```
Ethernet adapter Bluetooth Network Connection:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :
   Description . . . . . . . . . . . : Bluetooth Device (Personal Area Network)
   Physical Address. . . . . . . . . : D4-3B-04-97-DA-5F
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes

C:\Users\Me>
```

   Pay attention to the Physical Address and note this down, make sure you replace the dashes with colons so that the address is of the form "XX:XX:XX:XX:XX:XX"
10. Open the file "receiver.py" in the text editor of your choice and replace the MAC address in the script with that of your PC from the previous step. In receiver.py you should be modifying line 6.
11. Now, with your raspberry pi connected to the internet, repeat steps 2-5
12. On your raspberry pi, open the file "berryIMUKalmanBluetooth.py" and replace the MAC address on line 28 with the MAC address found in step 10
13. Run the following on your raspberry pi: sudo pip install smbus2
14. Back on your host PC, run the following command while inside your virtual environment: python receiver.py
15. On your raspberry pi, run the following: sudo python berryIMUKalmanBluetooth.py
16. On your host PC, ensure that receiver.py is showing the IMU output like so:

```
Command Prompt - python receiver.py                    —    □    ✕
{"bt_data": 0, "pose_data": 0}
{"bt_data": 0, "pose_data": 0}
{"bt_data": 0, "pose_data": 0}
{"bt_data": 0, "pose_data": 0}
{"bt_data": 0, "pose_data": 0}
{"bt_data": 0, "pose_data": 0}
{"bt_data": 0, "pose_data": 0}
{"bt_data": 0, "pose_data": 0}
{"bt_data": 0, "pose_data": 0}
{"bt_data": 0, "pose_data": 0}
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{"bt_data": 0, "pose_data": 0}
{"bt_data": 0, "pose_data": 0}
{"bt_data": 3, "pose_data": 0}
{"bt_data": 4, "pose_data": 0}
{"bt_data": 5, "pose_data": 0}
{"bt_data": 6, "pose_data": 0}
{"bt_data": 6, "pose_data": 0}
```

17. Open another terminal window on your host PC and navigate back to the Team4 directory
18. Activate your anaconda environment and run the following: python PoseModule.py
19. Now, when leaning left and right in front of your camera the pose_data value in receiver.py should now change between -1, 0, and 1 depending on how you're leaning.
20. Download the Freeride game from the following link, make sure you click the DOWNLOAD ALL button:
https://drive.google.com/drive/folders/1UwS_TOVVagyYyLYukNGMaLGsPThrIzT2?usp=sharing

21. From the downloaded Freeride1.0 folder, launch the game by double clicking on Freeride.exe