**Robotics**

[ec2-18-188-103-57.us-east-2.compute.amazonaws.com](http://ec2-18-188-103-57.us-east-2.compute.amazonaws.com)

chmod 400 ZASPython.pem

**Raspberry Pi Setup**

1. Format SD card on SD card formatter app
2. Select the OS and SD card and flash on Balena Etcher
3. Create empty ssh file (without extension) on SD card drive (which pops up when inserted)

**Power on Raspberry Pi**

1. Enter SD card into Pi
2. Connect the Ethernet/RJ45 cable from router to Pi
3. Power on by connecting USB-C to Pi and converter to laptop

**Preparation**

1. Mac terminal (for IP address): ping raspberrypi.local - 192.168.0.34
2. To see what devices are connected to Router: arp -a
3. ssh pi@<IP address from above> and the type yes
4. The username and password for Raspberry Pi are

Username: pi

Password: raspberry

1. sudo apt-get update. (Until 7 these don’t need to be done every time)
2. sudo apt-get upgrade
3. Select Y

**To Open the Viewer (Screen) - This Establishes a Wired Connection with RJ45 cable**

1. sudo raspi-config
2. use arrow keys to go to 5 (interfacing options) and select P3 (VNC)
3. use arrow keys to go to 7(Advanced Options) and select A8(GL driver)
4. Select G2 (GL fake kms)
5. use arrow keys to go to 7(Advanced Options) and select A5(Resolution)
6. Select the Resolution as DMT mode 85
7. Select finish
8. Open VNC Viewer app
9. File > new connection
10. Enter IP address of Raspberry Pi under IP address
11. Double click on the window

**Establishing A Wireless Connection**

1. Click the up and down arrow on the top right

2. Click connect to LAN

3. Click the arrows again and click LAN country

4. Select India

5. Click the arrows and choose the wifi network and type in password

6. On the raspberry pi terminal type sudo reboot. Remove the Internet cable

7. On Mac terminal ping the raspberry pi and copy the new IP address

8. Open VNC viewer and create a new connection with the new IP address

**Filezilla Stuff (Allows the transferring of files btw laptop and Pi)**

1. Open FileZilla and click on the icon on the top left

2. Click new site. Protocol should be SFTP, logon should be normal, user: pi and password: raspberry. The host should be raspberrypi.local

3. You will be prompted to enter password, so enter it, and then click

**Vexmo:**

Key - d765db65

Secret - 8dHlmBYqmmeY5Lgx

1. sudo -H pip3 install tensorflow-2.3.0-cp37-cp37m-linux\_armv7l.whl
2. curl -sc /tmp/cookie "https://drive.google.com/uc?export=download&id=11iycpKFZc267gryq06sdV1zrz0St\_Kox" > /dev/null
3. CODE="$(awk '/warning/ {print $NF}' /tmp/cookie)"