# Drone Testing

This file contains instructions to test the drone.

## Required Hardware:

1. Assembled Pluto Drone

## Required Package:

1. pluto_drone: This package contain the basic driver to control the pluto drone.
2. You should already have the pluto_drone package as it was given in Task 0. If not install the pluto_drone package by following the instruction here

## Testing instruction:

Please follow the given instruction in order to check the pluto drone

1. Turn ON your Pluto drone
2. Drone will enable a Wi-Fi and check the Wi-Fi in your PC/laptop. You will see a Wi-Fi as "**pluto_x_y**". Refer the Figure 1.

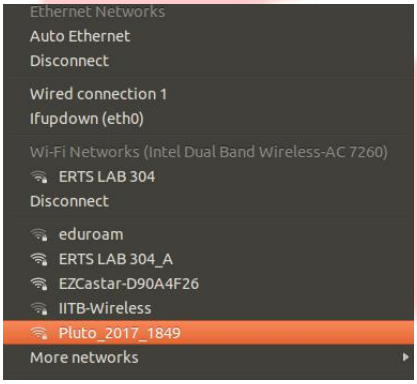


Figure 1: Checking Wi-Fi in PC/Laptop

3. Connect the "**pluto_x_y**" Wi-Fi in your PC/Laptop by entering the password. You can find the password in the Drone box. Refer the Figure 2:


Figure 2: Pluto password

4. After a successful connection between drone and PC/Laptop you can start testing the drone.
5. Run the python file by command given below:

```
>> rosrun plutoserver data_via_rosservice.py
```

This script will take data from drone sensor like accelerometer, gyroscope and magnetometer, and print this data on the terminal. This script is ready to take the data after launch.

6. Now connect the drone by running the following launch file. This launch file will run 3 scripts in order receive and send data to drone.

```
>> roslaunch plutoserver drone_comb.launch
```

The above launch file will launch the necessary node to communicate with drone. You can also send the command to drone by typing the following keyboard keys.

```
Control Your Drone!

Moving around:
        i
   j    k    l
        m

a : Arm drone
d : Dis-arm drone
k : Reset
r : stop smoothly
w : increase height
s : decrease height
```

7. In order to ensure the drone testing, you have to record a video of the process. **Follow the instruction given in Hardware Testing.pdf**
8. For more detail about the package please visit the wiki page of pluto_drone