e-Yantra Robotics Competition (eYRC 2019-20)

Drone Testing

This file contains instructions to test the drone.

Required Hardware:
1. Assembled Pluto Drone

Required Package:
1. eyantra_drone: This package contains the basic driver to control the drone.
2. You should already have the eyantra_drone package installed, from Task 0. If not installed, the eyantra_drone package can be installed by following the instruction from 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 access point (hotspot).
3. Check the Wi-Fi on your system. You will see a Wi-Fi named as "**PlutoX_xxxx_yyyy**", refer the Figure 1.
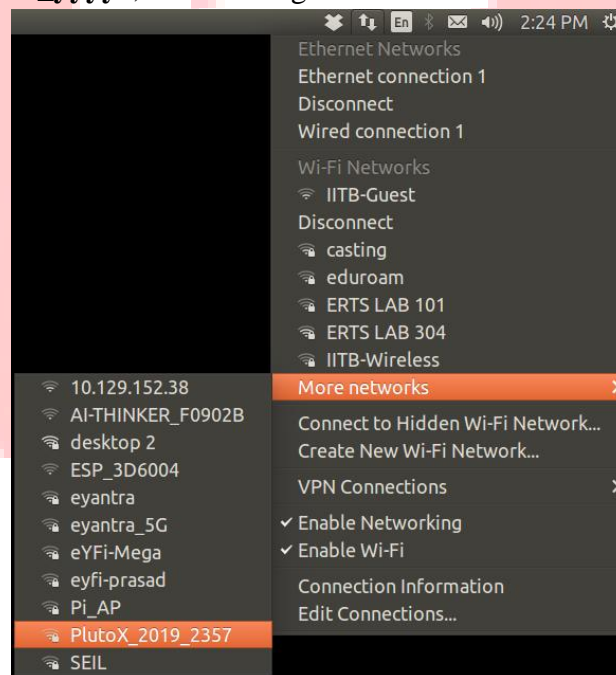

Figure 1: Checking Wi-Fi on your system

4. Connect to the "**PlutoX_xxxx_yyyy**" Wi-Fi by entering the password. You can find the password inside the Drone box. Refer Figure 2 as an example:

SSID: PlutoX_2019_2357
Password: plutox4376

Figure 2: Pluto password

5. After a successful connection between drone and your system, you can start testing the drone.

6. Now connect the drone by running the following launch file. This launch file will run 2 scripts in order receive and send data to drone

```
>> roslaunch edrone_server 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. **Follow the video recording instruction given in Hardware Testing.pdf**

8. For more detail about the package please visit the wiki page of eyantra_drone