

Installation Instructions

The environment that I have my project working on has below softwares and installation steps:

- Native Ubuntu 20.04
- Python 3.8.10
- Python Virtual Environment (not required to run the program, I used it to segregate my Python environments)
- ROS2 Foxy (<https://docs.ros.org/en/foxy/Installation.html>)
- Opencv
 - `sudo apt update`
 - `sudo apt install python3-opencv`
- Numpy
 - `sudo apt install python3-numpy`
- djitellopy
 - `pip install djitellopy`
 - <https://github.com/damiafuentes/DJITelloPy>
- Retain 'haarcascade_frontalface_default.xml' where it is in the repo. If changing the location please provide the absolute path of it within 'opencv_node.py' for 'faceCascade' variable
- After cloning the repo on local perform a build using 'colcon build' and source the project using '`. install/setup.bash`'
- If testing on a drone connect to drone's network from computer and then run the launch file and override node from project root as below:
 - `ros2 launch face_tracking_drone script.launch.py`
 - `ros2 run face_tracking_drone override_node`
- Hitting 'q' at any time of flight from terminal running `override_node` would land the drone