**Python Package Dependencies**

sudo apt-get install python-mysqldb

sudo pip install RPi.GPIO

sudo pip install picamera

**Enable Picamera**

sudo raspi-config -> Interfacing options -> camera

**MySQL credentials**

server = 'sql2.freemysqlhosting.net'

username = 'sql2286265'

pswd = 'tE6\*aN5%'

**MySQL admin panel access link:**

<http://phpmyadmin.co/>

**Code Description**

1. Create camera instance if enabled. Script will exit if camera is NOT enabled in raspi-config settings OR picamera library is not installed
2. Cleanup GPIO to avoid channel warning and set GPIO numbering mode to BroadCom
3. Set MySQL credentials and connect to it from python interface. Script will terminate if connection fails due to internet outage or similar
4. Setup GPIO pins for DHT11 and proximity sensor connections
5. Create Class DroneSensors with separate methods/functions to read from each connected sensor (DHT11, Proximity, Camera)
6. read\_proximity()
7. read\_dht11()
8. capture()
9. Create and instance/constructor of Class to read from sensors
10. Create and start a thread to capture still image from camera every 10secs
11. Read from other sensors in a loop with timestamp and push parsed sensory data to MySQL database.

P.S. Please note that Gyro sensor is not there as we have not separately tested it’s working. Once we test this setup, I will then integrate gyro in the final script as well