**Main.py** is the main script of the project and it uses all other scripts.

It imports all other scripts.

This script is responsible to do the followings:

* Load data from configuration file and load updated configuration from server.
* Enable sensors and its associated outputs based on configurations.
* Checks camera status when to start and stop steaming.
* Add and delete sensor in Realtime.

**AtlasI2C.py**

This script is used to get data from Atlas Scientific sensors.

**Camera.py**

This script has all the functions related to camera.

Functions includes: Start/stop camera and streaming update camera or streaming parameters.

**Driver**

This script contains to start and stop pumps.

**PCA9685.py**

This script is used to interface with PCA9685 pump driver. Set driver parameters like PWM frequency, and duty.

**WebComunication.py**

This script contains functions to send and receive data from server.

All sensor scripts using this to send respective data to server.

**Other scripts:**

All sensor scripts have some functions like **addSensor**, **delete\_sensor** to add delete that sensor. **activate\_deactivate:** This function is used to activate and deactivate sensor.

**pause\_unpause\_sensors:** This isused to temporary pause the sensor from sending data to server, this functions is used when adding/ deleting new sensor.

**CheckOutputs:** This function will check outputs associated with the sensor.

**get\_measurement\_all:** This function will read all the sensors.

Like if 2 co2 and 3 DHT22 sensors are configured **Sensor\_CO2.py** script has function **get\_measurement\_all** will read both CO2 sensors and **Sensor\_DHT.py** script has function **get\_measurement\_all** will read all 3 DHT sensors.

**SendData** will send data to server.

Configuration folder has a file **configuration.json** **Main.py** will save configuration int it received from the server, in case when server is not working it will load these configurations from the file.