**Project Log Book**

Date: 30th September 2019

Tasks: Worked on the project proposal.

Reflection: Linked both previous projects together with some changes to it.

Issues: None

Date: 23rd September 2019

Tasks: Started Project Proposal.

Reflection: Worked on Project proposal.

Issues: None.

Date: 14th October 2019

Task: Worked on the arduino camera Esp 32 Cam.

Issue: Had a problem making the example code to work with the arduino camera.

Date : 7th October 2019

Tasks: Planned and sorted out the code for the sensors, the esp32 camera sensor, mq5 natural sensor and also the two 12V DC Motors.

Reflection: Sorted codes for the project, checked on different code examples online.

Issues: Esp32 camera didn’t work.

Date: 21st october 2019

Tasks: Get code from circuit basics for my dht11 sensor. <http://www.circuitbasics.com/how-to-set-up-the-dht11-humidity-sensor-on-an-arduino/>

Reflection: Compiled the dht 11 code.

Issues: No issues.

Date 28th October 2019

Tasks: Get Arduino Camera to work

Reflection: I set up the adruino camera, but it didn’t work.

Issues: Error making the camera to work, due to incorrect boot mode set up.

Date 4th November 2019

Tasks: Get MQ5 Gas sensor to work

Reflection: Used an example code for my MQ5 Gas sensor. https://www.youtube.com/watch?v=RjEa-Ure0dI

Issues: No issues

Date: 11th November 2019

Tasks: Research how the 12V motor work with Arduino and get it working,

Get Arduino connected to Smartphone using HC 05 Bluetooth module.

Get DHT11 temperature and Humidity sensor working with Arduino board.

Date 18th November 2019

Tasks: Get DHT11 sensor working, Get HC05 bluetooth module working. Get MQ5 Gas sensor working.

Reflection: I got the DHT11 sensor working using from this link <http://www.circuitbasics.com/how-to-set-up-the-dht11-humidity-sensor-on-an-arduino/>. I got the Blueooth module HC05 to turn on and identifiable on my smart phone device. Also got the MQ5 sensor turned on but error on the uploading code.

Issues: HC05 code had an error uploading and MQ5 sensor had an error uploading code.

Date 25th Novemeber 2019

Tasks: Work on Gas Sensor.

Reflection: Got Gas Sensor working. Used a this link for the gas sensor. <http://arduinolearning.com/gas-sensors/mq5-gas-sensor.php>

Date 2nd Decemeber 2019

Tasks:Motor Control.

Reflection: Motor controlled by smartphone using bluetooth device. <https://www.youtube.com/watch?v=HBQIH98wmHs&list=PLrHcdCn6WAiydEnRxgmOZojoeygAY_6eV&index=13&t=0s>

Issues: Had a problem getting the code to compile but eventually got it to work by removing some unneccasry pins that where connected no the arduino board such as rx, tx, and reset.