Computer Systems and Networks Project.

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Course: H.Dip in Computer Science.

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# **Introduction.**

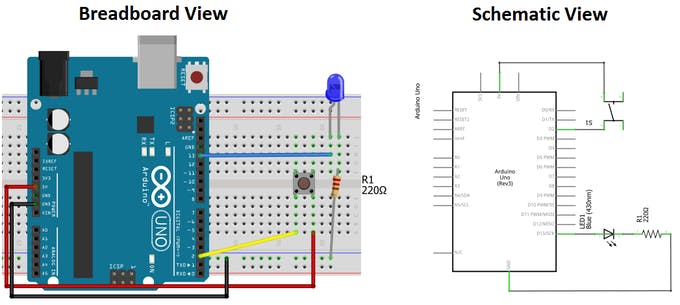
The purpose of this project was to demonstrate the capabilities of the MQTT protocol, and to gain a better understanding of the issues and challenges of a connected world (IOT Infrastructure).

# **Block Diagram.**

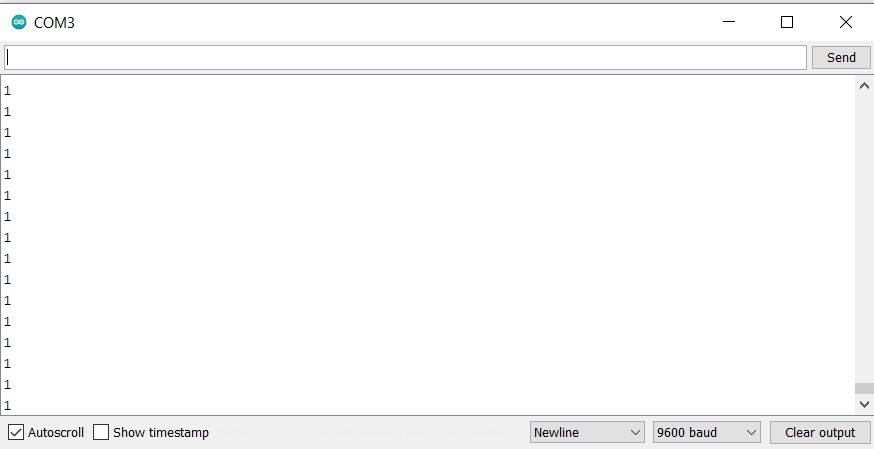
The following Block Diagram was how I broke this project down into different individual sections.

# **Research.**

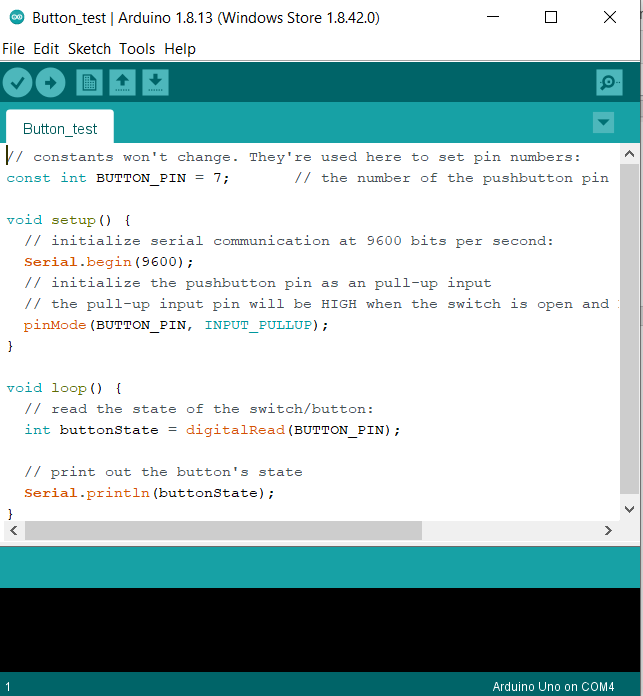
## **Button Tests.**



**Figure 1 - Arduino Button Test.**

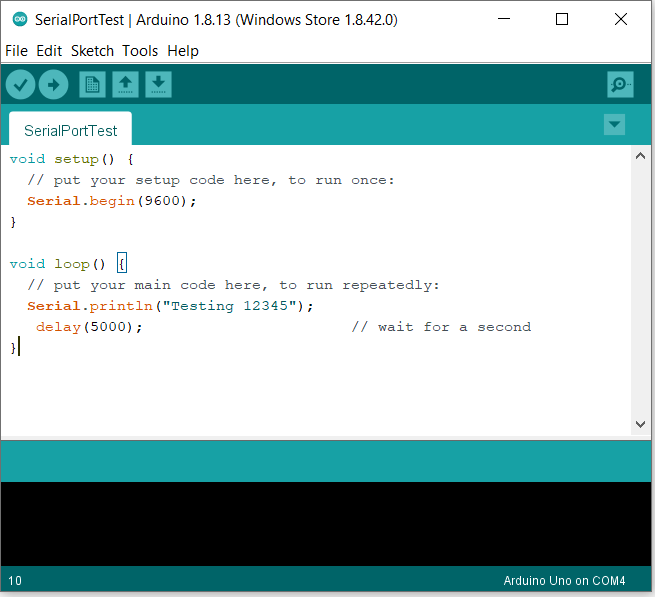


**Figure 2 -Serial Port Button Test.**



**Figure 3 - Button Test Code**

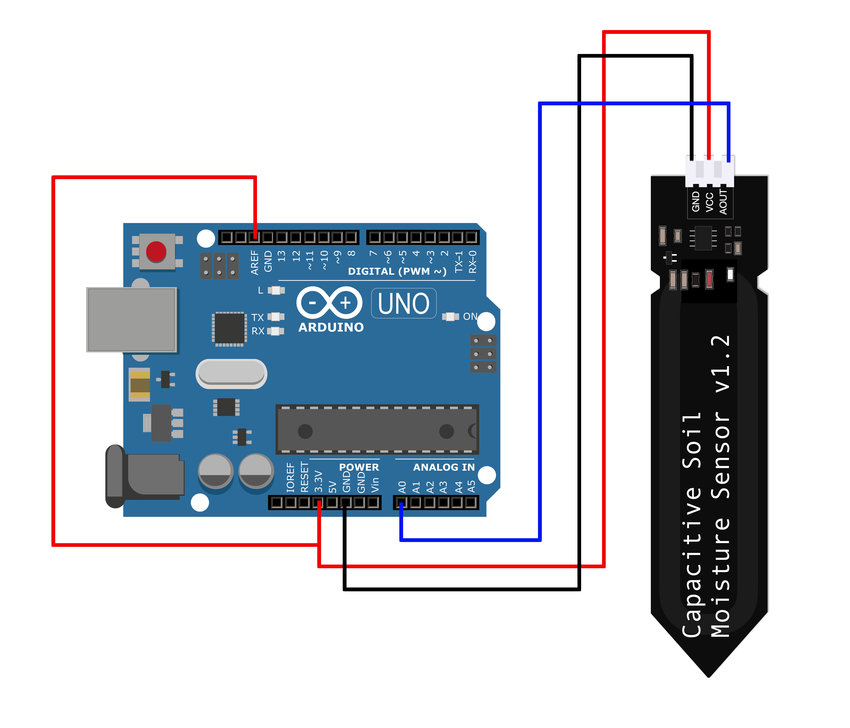
## **Serial Port Test.**



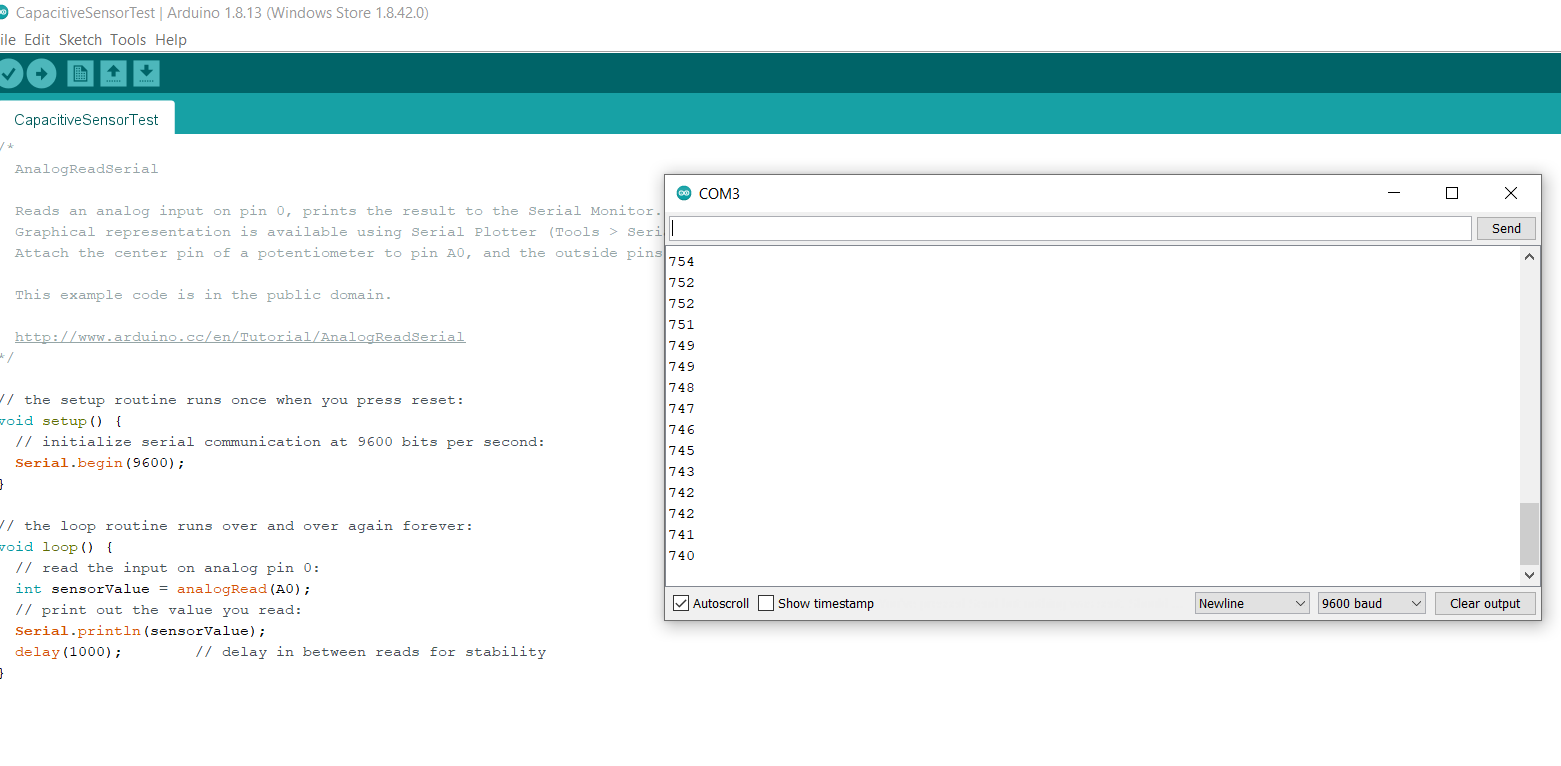
**Figure 4 - Serial Test Code.**

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## **Capacitive Sensor Test.**



**Figure 5 -Capacitive Sensor Module.**



**Figure 6 - Arduino Comm Port Reading Soil Module.**

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**Figure 7 - Actual Image of Soil Module.**

## **Relay Test.**

## **Water Pump Test.**

## **Pi Communication Tests to Arduino.**

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## **Pi Communication Tests to Blynk Website.**

# **Design Methods.**

# **Design.**

# **Conclusion.**