IOT Project

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What is our project?

One of the largest problems in modern day is global warming. A simple way to help the environment is by starting a small garden in your backyard. Our project benefits these inexperienced farmers who are just starting off. We programmed a code that reminds the user when the soil is dry so the plants can stay watered and healthy.

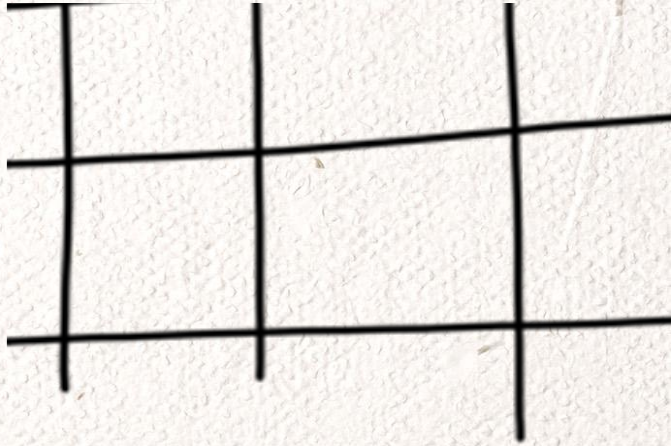
Our plan

Originally we wanted to use the sensor to predict acid rain because of its effects on the ecosystem. We soon realized that the sensor wouldn't be able to predict such conditions. Once we finalized our idea we planned to meet once a week to download, calibrate, and program.

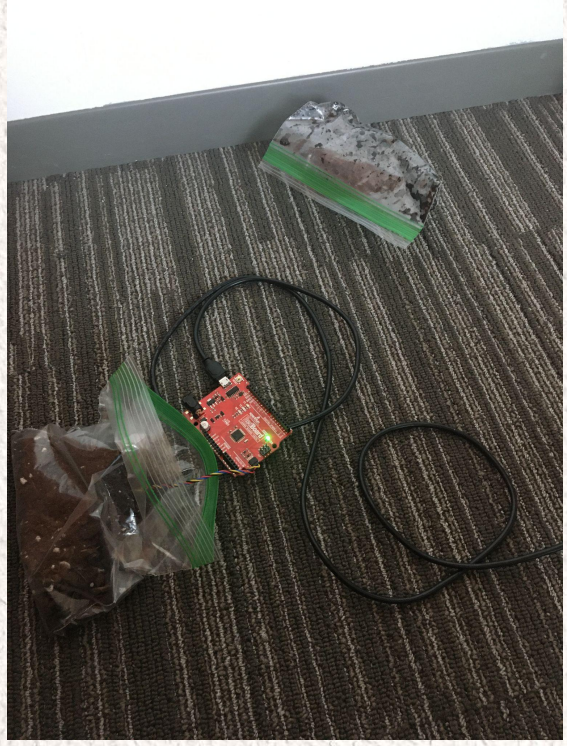
July 12th- We downloaded the software required to begin the project
July 19th- We troubleshooted the errors and finalized project.
August 5th- We used dirt samples and programmed the code.

Circuit Design/Code

```
void loop() {
  if (! bme.performReading()) {
    Serial.println("Failed to perform reading :(");
    return;
  }

  Serial.print("Temperature = ");
  Serial.print(bme.temperature);
  Serial.println(" *C");

  Serial.print("Pressure = ");
  Serial.print(bme.pressure / 100.0);
  Serial.println(" hPa");

  Serial.print("Humidity = ");
  Serial.print(bme.humidity);
  Serial.println(" %");

  Serial.print("Gas = ");
  Serial.print(bme.gas_resistance / 1000.0);
  Serial.println(" KOhms");

  Serial.print("Approx. Altitude = ");
  Serial.print(bme.readAltitude(SEALEVELPRESSURE_HPA));
  Serial.println(" m");

  Serial.println();
  delay(2000);

  if ((bme.readHumidity() >= 76) && (bme.readHumidity() <= 86)){
    Serial.print("Your plant needs to be watered ");
  }
```



Picture



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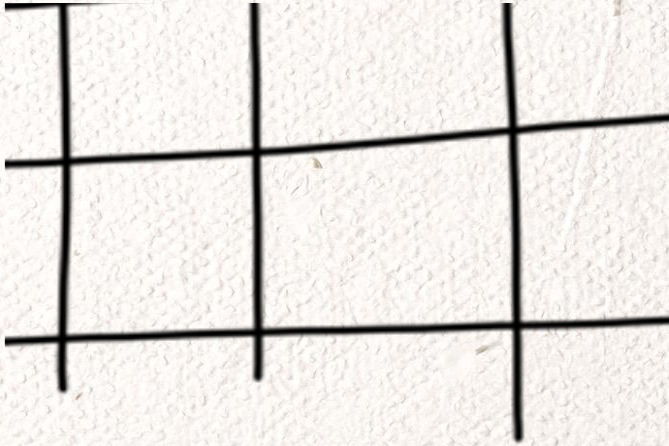

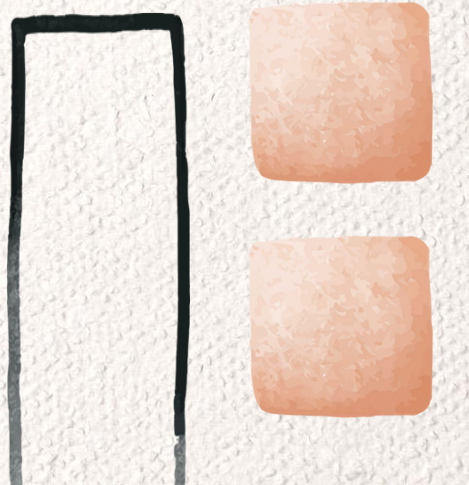

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