Team HUMMUS
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Arduino code

```
//--- Smart Environment Project ---
//------ Creative Technology ------
//------------ 2020 -------------
// ----------- MeatMe -------------

// Special thanks to Circuit Basics and the ElectronFun for helping getting along
with the code for the sensors
// Circuit Basics:
http://www.circuitbasics.com/how-to-set-up-the-dht11-humidity-sensor-on-an-arduino/
// Electronfun.com: http://electronfun.com/project_2.php

// Including the libary for the DHT11 Sensor and defining at on pin 7
#include <dht.h>
dht DHT;
#define DHT11_PIN 7

// Digital pin 8 will be called 'Red'
int Red = 8;
// Digital pin 9 will be called 'Yellow'
int Yellow = 9;
// Digital pin 10 will be called 'Green'
int Green = 10;
// Analog pin 0 will be called 'Gassensor'
int Gassensor = A0;
// Set the GassensorValue to 0
int GassensorValue = 0;
// interger for a time loop
int lastMillis = 0;


// The setup routine runs once when you press reset
void setup() {
  // Initialize the digital pins as an output
  pinMode(Red, OUTPUT);
  pinMode(Yellow, OUTPUT);
  pinMode(Green, OUTPUT);
  // Initialize serial communication at 9600 bits per second
  Serial.begin(9600);
}
```

```
// The loop routine runs over and over again forever
void loop() {
  if (millis() > lastMillis + 1000) {
    lastMillis = millis();
    // Read and print out Tempsensor
    int chk = DHT.read11(DHT11_PIN);
    Serial.print('T');
    Serial.println((int)DHT.temperature);
    Serial.print('H');
    Serial.println((int)DHT.humidity);

    // Read the input on analog pin 0 (named 'Gassensor')
    GassensorValue = analogRead(Gassensor);
    // Print out the value you read
    Serial.print('S');
    Serial.println(GassensorValue, DEC);
  }


  // If sensorValue is lower than 475 the green led will turn on
  if (GassensorValue < 475) {
    digitalWrite(Green, HIGH);
  }
  else {
    // Deactivate digital output- the LED will not light up
    digitalWrite(Green, LOW);
  }

  // If sensorValue is between 475 and 550 the orange led will turn on
  if (GassensorValue >= 475 && GassensorValue <=550) {
    digitalWrite(Yellow, HIGH);
  }
  else {
    // Deactivate digital output - the LED will not light up
    digitalWrite(Yellow, LOW);
  }

  // If sensorValue is greater than 550 the red led will turn on
  if (GassensorValue > 550) {
    digitalWrite(Red, HIGH);
  }
  else {
    // Deactivate digital output - the LEDs will not light up
    digitalWrite(Red, LOW);
  }
```

```
}
```