#include <SoftwareSerial.h>

SoftwareSerial GPSModule(3,2);

int sensor\_pin = A0;

int output\_value ;

String MySendString;

int pumpPin = 4;

void setup() {

pinMode(pumpPin,OUTPUT);

digitalWrite(pumpPin,0);

Serial.begin(9600);

delay(2000);

Serial.println("Reading From the Sensor ...");

GPSModule.begin(9600);

delay(5000);

Serial.println("Initializing HTTP... ");

//delay(10000);

httpInit();

}

void loop()

{

output\_value= analogRead(sensor\_pin);

output\_value = map(output\_value,1020,0,0,100);

Serial.print("Mositure : ");

Serial.print(output\_value);

Serial.println("%");

delay(3000);

if(output\_value > 60)

{

//Turn off pump

digitalWrite(pumpPin,0);

Serial.println("Pump off");

}

else

{

//Turn on pump

digitalWrite(pumpPin,1);

Serial.println("Pump On");

}

int pumpStatus = digitalRead(pumpPin);

Serial.println(pumpStatus);

MySendString = String(output\_value) + "," + String(pumpStatus);

sendData(MySendString);

}

void httpInit()

{

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

// Initialize GSM to enter GPRS mode for internet conection

GPSModule.println("AT+HTTPINIT");

GPSModule.print("\n");

updateSerial();

delay(1000);

GPSModule.println("AT+CGATT=1");

delay(2000);

updateSerial();

GPSModule.println("AT+SAPBR=3,1,\"CONTYPE\",\"GPRS\"");

delay(2000);

updateSerial();

// Remember to change to the network provider you are using

GPSModule.println("AT+SAPBR=3,1,\"APN\",\"SAFARICOM\"");

delay(2000);

updateSerial();

GPSModule.println("AT+SAPBR=1,1");

delay(2000);

updateSerial();

GPSModule.println("AT+SAPBR=2,1");

delay(2000);

updateSerial();

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

}

void sendData(String data)

{

// Append the sensor value to the server URL

GPSModule.print("AT+HTTPPARA=\"URL\",\"http://heriplex.com/irrig/getval.php?g=");

GPSModule.print(data);

GPSModule.println("\"");

delay(1000);

updateSerial();

// Now POST the data to the cloud

GPSModule.println("AT+HTTPACTION=1");

delay(2000);

//Serial1.println("AT+CGATT=0");

//delay(3000);

}

void updateSerial()

{

while(GPSModule.available())

{

Serial.write(GPSModule.read());//Forward what Software Serial received to Serial Port

}

}