Sprint Delivery - 1

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Connecting Sensors with Arduino

```
#include "Arduino.h"
#include "dht.h"
#include "SoilMoisture.h"
#define dht_apin A0

const int sensor_pin = A1; //soil moisture int pin_out = 9;
dht DHT; int c=0; void setup()
{
pinMode(2, INPUT); //Pin 2 as INPUT pinMode(3,OUTPUT);//PIN
3 as OUTPUT pinMode(9, OUTPUT);//output for pump
}
void loop()

{

  if (digitalRead(2) == HIGH)
  {
  digitalWrite(3, HIGH);                    // turn the LED/Buzz ON
  delay(10000); // wait for 100 msecond digitalWrite(3, LOW); // turn the
  LED/Buzz OFF delay(100);
  }
    Serial.begin(9600);
    delay(1000);
   DHT.read11(dht_apin); //temprature
    float h=DHT.humidity;
```

```
  float t=DHT.temperature;
   delay(5000);
  Serial.begin(9600);
   float moisture_percentage;
   int sensor_analog;
  sensor_analog = analogRead(sensor_pin);
  moisture_percentage = ( 100 - ( (sensor_analog/1023.00) * 100 ));
  float m=moisture_percentage; delay(1000); if(m<40)//pump
  { while(m<40)
  {
  digitalWrite(pin_out,HIGH);      //open pump
  sensor_analog = analogRead(sensor_pin);
  moisture_percentage = ( 100 - ( (sensor_analog/1023.00) * 100 ));
  m=moisture_percentage; delay(1000);
  }
  digitalWrite(pin_out,LOW);                    //closepump
  } if(c>=0)
  {
  mySerial.begin(9600);
  delay(15000);
  Serial.begin(9600); delay(1000);
  Serial.print("\r"); delay(1000);

  Serial.print((String)"update-
>"+(String)"Temprature="+t+(String)"Humidity="+h+(String
)"Moisture="+m); delay(1000);

     }

}
```

Circuit Diagram