Sprint Delivery - 1
Connecting Sensors with Arduino
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Source Code:

```
#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); //temperature
     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)
      {
            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: