Smart Farmer-IOT Enabled Smart Farming Application

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Delivery of Sprint

TITLE	**Smart Farmer-IOT Enabled Smart Farming Application**
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Connecting Sensors with Arduino using C++ 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
}
voidloop()
{
  if (digitalRead(2) == HIGH)
  {
  digitalWrite(3, HIGH);                    // turn the LED/Buzz ON
  delay(10000); // wait for 100 msecond digitalWrite(3, LOW);
   // turn theLED/Buzz OFF delay(100);
  }
    Serial.begin(9600);
       delay(1000);
     DHT.read11(dht_apin);
     //temprature                          floath=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