SMART FARMER-IOT Enabled Smart Farming Application

SPRINT-01

TITLE	SMART FARMER-IOT Enabled Smart Farming Application
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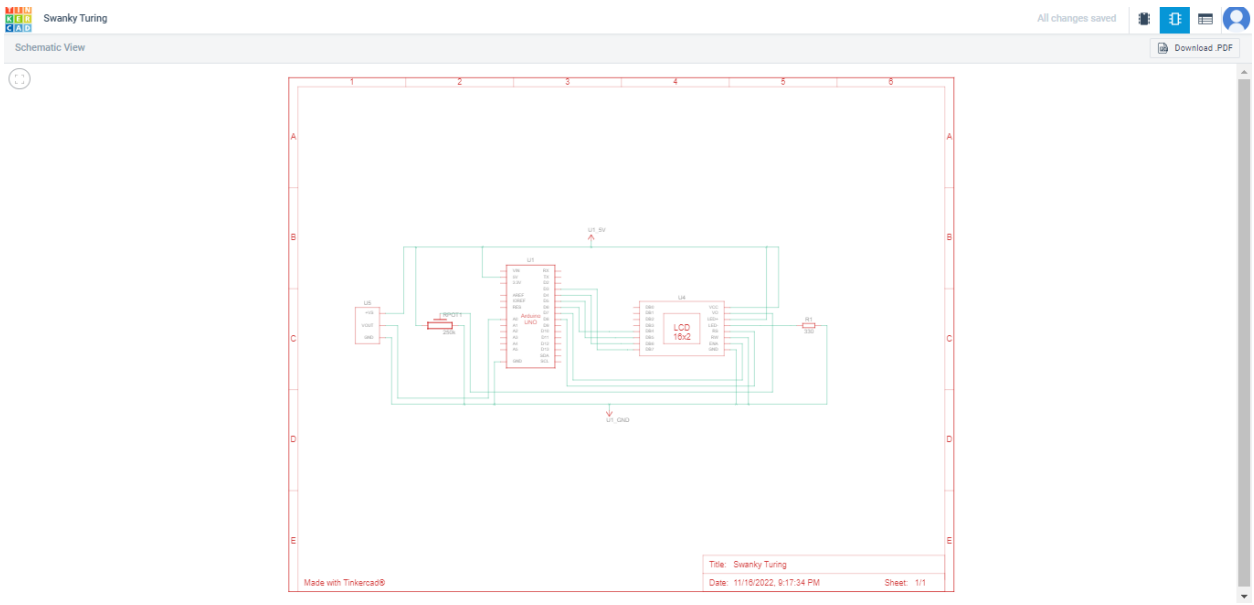
Coding for monitoring environment temperature by using temperature sensor (TMP36) and Arudino UNO

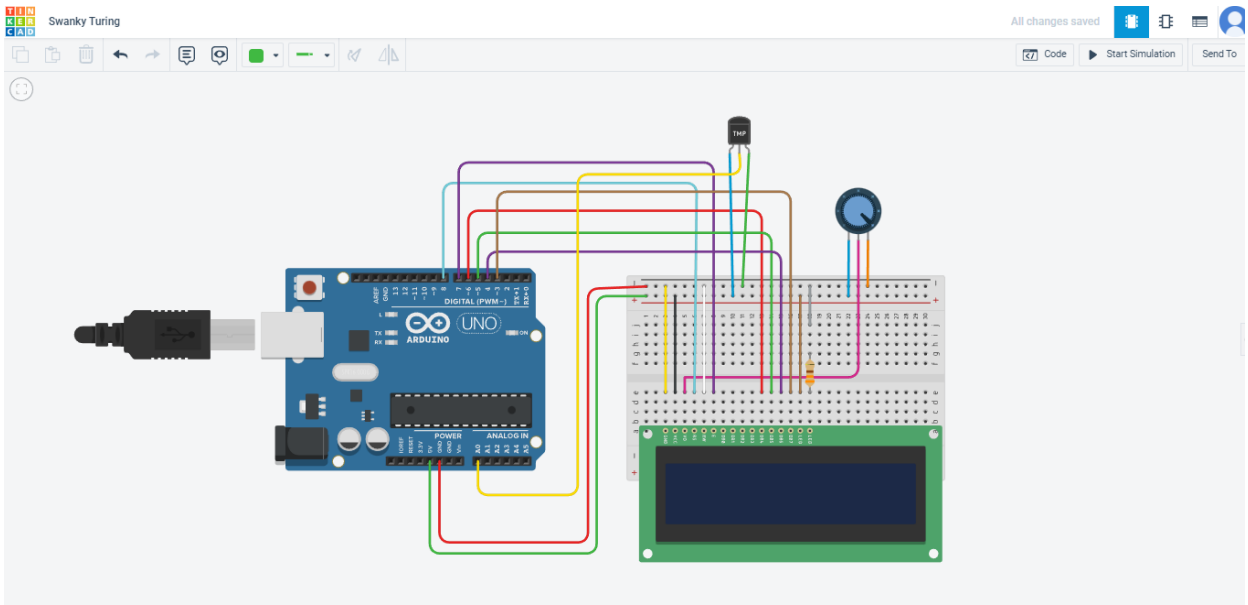
COMPONENTS USED

Name	Quantity	Component
U1	1	Arduino Uno R3
U4	1	LCD 16 x 2
Rpot1	1	250 kΩ Potentiometer
R1	1	330 Ω Resistor
U5	1	Temperature Sensor [TMP36]

CIRCUIT DIAGRAM



SCHEMATIC VIEW



PROGRAM

```
#include "LiquidCrystal.h"
LiquidCrystal lcd(8,7,6,5,4,3);
int sensorPin = 0;

void setup()
{
  Serial.begin(9600);
  lcd.begin(16,2);
}

void loop()
{

 int reading = analogRead(sensorPin);

 // measure the 5v with a meter for an accurate value
 //In particular if your Arduino is USB powered

 float voltage = reading * 4.68;
```

```
 voltage /= 1024.0;

 // now print out the temperature

 float temperatureC = (voltage - 0.5) * 100;
 Serial.print(temperatureC);
 Serial.println(" degrees C");

   lcd.setCursor(0,0);
   lcd.print("Temperature Value ");
   lcd.setCursor(0,1);
   lcd.print(" degrees C");
   lcd.setCursor(11,1);
   lcd.print(temperatureC);

 delay(100);
}



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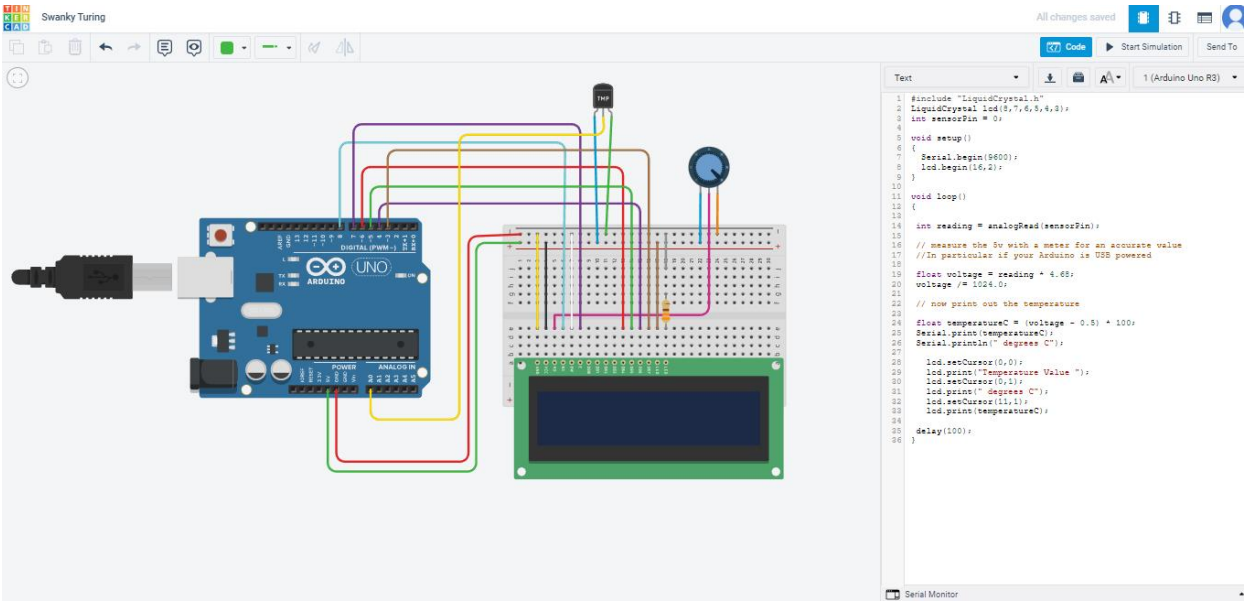
CONNECTIONS AND CODING



OUTPUT