PROJECT DEVELOPMENT PHASE
SPRINT-2

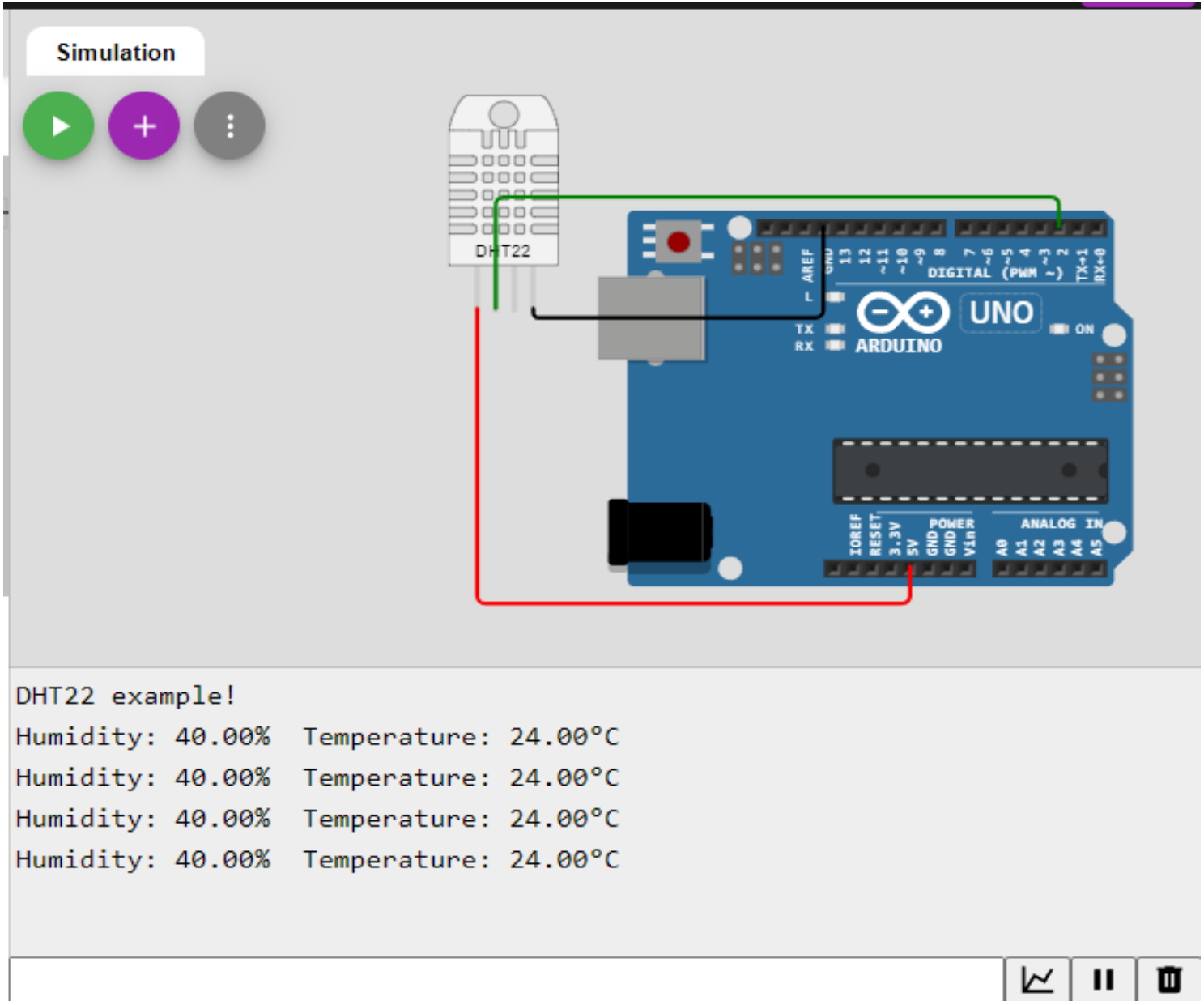
Date	17 NOVEMBER 2022
Team ID	PNT2022TMID32996
Project Name	Project – IoT Based Smart Crop Protection System For Agriculture

WOKWI CODE AND PYTHON CODE

WOKWI CODE TO STIMULATE TEMPERATURE & HUMIDITY:

```
#include "DHT.h"


#define DHTPIN 2
#define DHTTYPE DHT22

DHT dht(DHTPIN, DHTTYPE);

void setup() {
 Serial.begin(115200);
 Serial.println(F("DHT22 example!"));

 dht.begin();
 }

void loop() {
```

```
  float temperature = dht.readTemperature();
  float humidity = dht.readHumidity();


if (isnan(temperature) || isnan(humidity)) {
  Serial.println(F("Failed to read from DHT sensor!"));
  return;
  }

  Serial.print(F("Humidity: "));
  Serial.print(humidity);
  Serial.print(F("%  Temperature: "));
  Serial.print(temperature);
  Serial.println(F("°C "));


  delay(2000);
 }
```


Simulation
DHT22
UNO
ARDUINO
DIGITAL (PWM ~)
ANALOG IN
POWER
TX
RX
ON
DHT22 example!
Humidity: 40.00% Temperature: 24.00°C
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PHYTHON CODE TO DETECT ANIMALS & BIRDS AND TO ALERT THE FARMERS USING BUZZER :

```
import RPi.GPIO as GPIO
import time

sensor = 16
buzzer = 18

GPIO.setmode(GPIO.BOARD)
GPIO.setup(sensor,GPIO.IN)
GPIO.setup(buzzer,GPIO.OUT)

GPIO.output(buzzer,False)
print "Initialzing PIR Sensor....."
time.sleep(12)
print "PIR Ready..."
print " "
```

```
try:
   while True:
      if GPIO.input(sensor):
         GPIO.output(buzzer,True)
         print "Motion Detected"
         while GPIO.input(sensor):
            time.sleep(0.2)
      else:
         GPIO.output(buzzer,False)



except KeyboardInterrupt:
    GPIO.cleanup()
```