

Assignment 2

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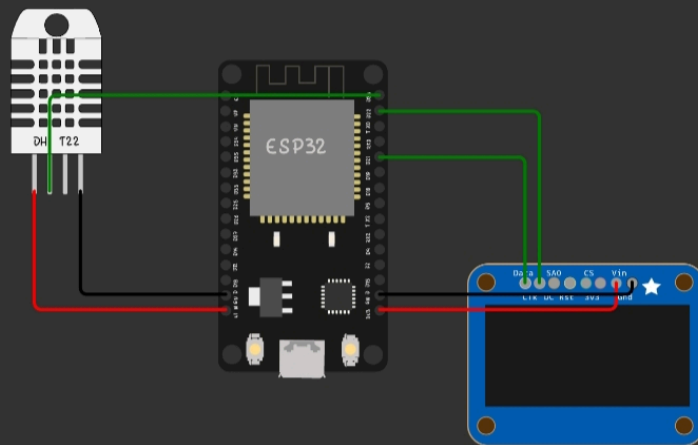
Holycross Engineering College

III year ECE



Simulation

Code





Simulation

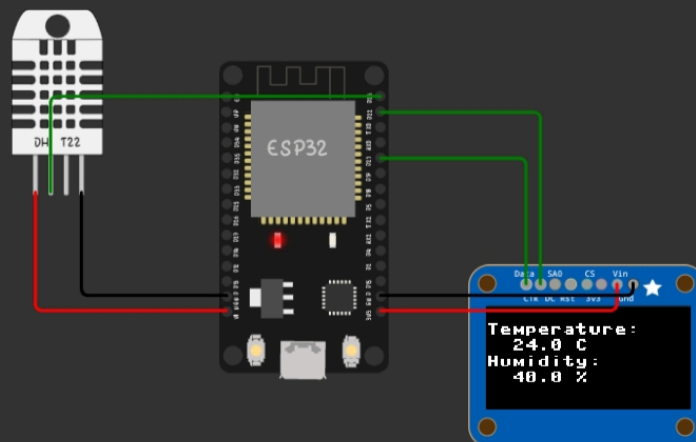
Code



00:13.630



98%



Temperature: 24.0 C

Humidity: 40.0 %

Temperature: 24.0 C

Humidity: 40.0 %

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Humidity: 40.0 %

Temperature: 24.0 C

Humidity: 40.0 %

Temperature: 24.0 C

```
1  from machine import Pin, I2C
2  import ssd1306
3  from time import sleep
4  import dht
5
6  # ESP32 Pin assignment
7  i2c = I2C(0, scl=Pin(22), sda=Pin
8
9  oled_width = 128
10 oled_height = 64
11 oled = ssd1306.SSD1306_I2C(oled_w
12
13 sensor = dht.DHT22(Pin(23))
14 while True:
15     try:
16         sleep(2)
17         sensor.measure()
18         temp = sensor.temperature()
19         hum = sensor.humidity()
20         print('Temperature: %3.1f C'
21         print('Humidity: %3.1f %%' %h
22
23         oled.text('Temperature: ' , 0
24         oled.text('  %3.1f C' %temp,
25         oled.text('Humidity:' 94, 0,
26         oled.text('  %3.1f %%' %hum
27
28         oled.show()
29
30     except OSError as e:
31         print('Failed to read sensor.
32
```

```
1  e import Pin, I2C
2  306
3  nport sleep
4
5
6  assignment
7  , scl=Pin(22), sda=Pin(21))
8
9  = 128
10  = 64
11  306.SSD1306_I2C(oled_width, oled_
12
13  t.DHT22(Pin(23))
14
15
16  )
17  neasure()
18  sensor.temperature()
19  ensor.humidity()
20  Temperature: %3.1f C' %temp)
21  Humidity: %3.1f %%' %hum)
22
23  kt('Temperature: ' , 0, 10)
24  kt(' %3.1f C' %temp, 0, 20)
25  kt('Humidity:' 94, 0, 30)
26  kt(' %3.1f %%' %hum , 0, 40)
27
28  ow()
29
30  Error as e:
31  Failed to read sensor.')
32
```