

WOKWI SAVE SHARE Docs SIGN IN

main.py • diagram.json •

```

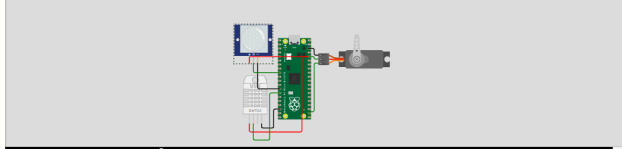
1 from machine import Pin, PWM
2 import time
3 import dht
4
5 # Initialize PIR sensor
6 pir = Pin(6, Pin.IN)
7
8 # Initialize DHT22 sensor
9 dht_sensor = dht.DHT22(Pin(10))
10
11 # Initialize Servo motor
12 servo = PWM(Pin(17))
13 servo.freq(50) # Typical servo frequency
14
15 # Function to set servo angle
16 def set_servo_angle(angle):
17     # Servo expects pulse width between 0.5ms to 2.5ms
18     pulse_width = int((angle / 180) * 2000 + 500)
19     duty = pulse_width * (65535 // 20000)
20     servo.duty_u16(duty)
21
22 try:
23     while True:
24         # Check for motion
25         if pir.value() == 1:
26             print("Motion detected!")
27             # Turn servo to 90 degrees

```

Simulation 00:16.227 99%

PIR Motion Sensor ×

Simulate motion



```

Temperature: 24.0°C, Humidity: 40.0%
Temperature: 24.0°C, Humidity: 40.0%
Temperature: 24.0°C, Humidity: 40.0%
Temperature: 24.0°C, Humidity: 40.0%
Motion detected!
Temperature: 24.0°C, Humidity: 40.0%
Motion detected!
Temperature: 24.0°C, Humidity: 40.0%
Temperature: 24.0°C, Humidity: 40.0%

```

16:08 24-07-2024

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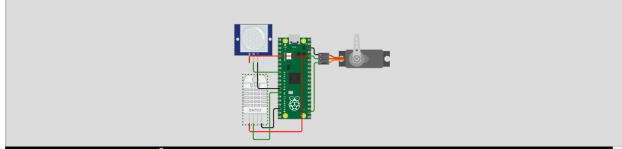
```

Simulation 00:14.562 105%

Editing DHT22 ×

Temperature: 28.0°C

Humidity: 64.0%



```

Temperature: 24.0°C, Humidity: 40.0%
Temperature: 24.0°C, Humidity: 40.0%
Temperature: 47.8°C, Humidity: 40.0%
Temperature: 28.0°C, Humidity: 40.0%
Temperature: 28.0°C, Humidity: 64.0%
Temperature: 28.0°C, Humidity: 64.0%
Temperature: 28.0°C, Humidity: 64.0%

```

16:12 24-07-2024