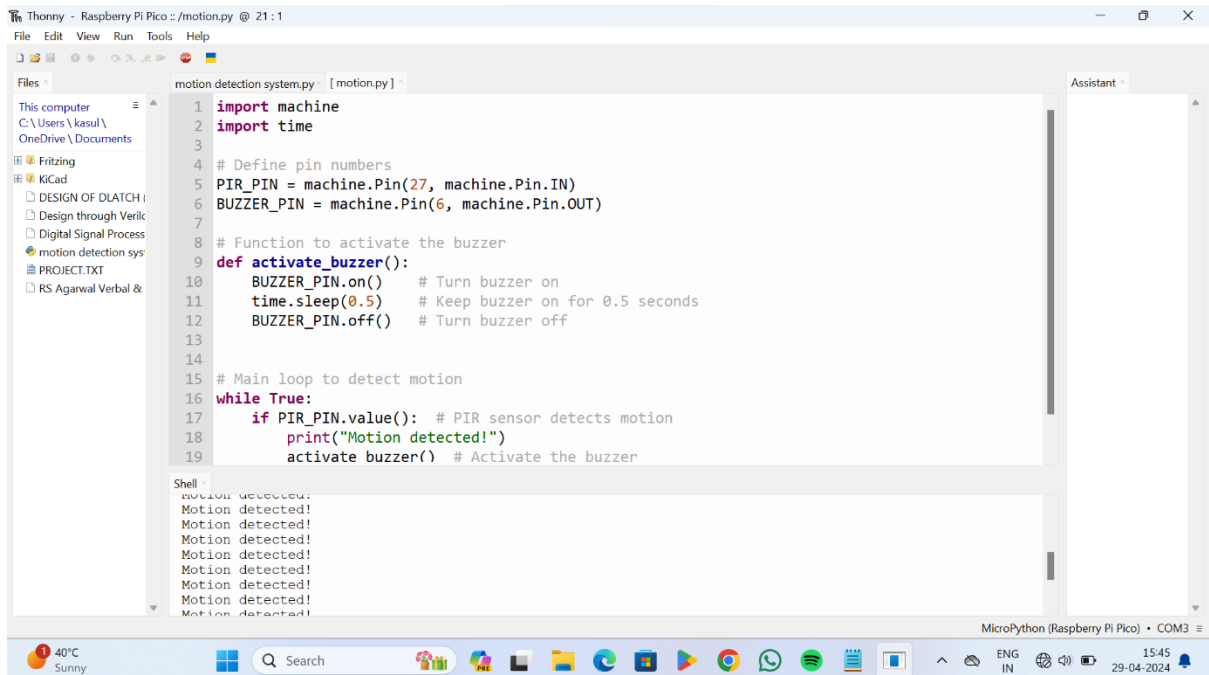


MOTION DETECTION SYSTEM

Using cps



The screenshot shows the Thonny IDE interface for a Raspberry Pi Pico. The main window displays the code for 'motion detection system.py'. The code imports the 'machine' and 'time' modules, defines pin numbers for a PIR sensor (27) and a buzzer (6), and includes a function to activate the buzzer. A main loop continuously checks the PIR sensor's value; if it detects motion, it prints 'Motion detected!' and activates the buzzer for 0.5 seconds. The shell window at the bottom shows the output of the program, which repeatedly prints 'Motion detected!'. The status bar at the bottom indicates the board is a MicroPython (Raspberry Pi Pico) COM3, with a temperature of 40°C and the date 29-04-2024.

```
1 import machine
2 import time
3
4 # Define pin numbers
5 PIR_PIN = machine.Pin(27, machine.Pin.IN)
6 BUZZER_PIN = machine.Pin(6, machine.Pin.OUT)
7
8 # Function to activate the buzzer
9 def activate_buzzer():
10     BUZZER_PIN.on() # Turn buzzer on
11     time.sleep(0.5) # Keep buzzer on for 0.5 seconds
12     BUZZER_PIN.off() # Turn buzzer off
13
14
15 # Main loop to detect motion
16 while True:
17     if PIR_PIN.value(): # PIR sensor detects motion
18         print("Motion detected!")
19         activate_buzzer() # Activate the buzzer
```

Shell

```
Motion detected!
Motion detected!
Motion detected!
Motion detected!
Motion detected!
Motion detected!
Motion detected!
Motion detected!
```

MicroPython (Raspberry Pi Pico) • COM3

40°C Sunny 15:45 29-04-2024

