```
// Define the PIR sensor and LED pin

int pirPin = 13;  // PIR sensor OUT pin connected to GPIO13 (D1 on ESP32)

int ledPin = 14;  // LED connected to GPIO14 (D2 on ESP32)


void setup() {
  // Initialize the PIR sensor and LED pins
  pinMode(pirPin, INPUT);  // PIR sensor input pin
  pinMode(ledPin, OUTPUT); // LED output pin
  Serial.begin(115200);    // Start the serial monitor for debugging
}


void loop() {
  int motionState = digitalRead(pirPin);  // Read PIR sensor output

  if (motionState == HIGH) {  // If motion is detected
    Serial.println("Motion Detected!");  // Print message to Serial Monitor
    digitalWrite(ledPin, HIGH);  // Turn ON LED
  } else {
    Serial.println("No Motion");  // Print message when no motion detected
    digitalWrite(ledPin, LOW);  // Turn OFF LED
  }

  delay(500);  // Short delay to avoid excessive serial prints
}
```