

Experiment 4: Develop a program to control a DC motor with Arduino board.

Pin Connections:

Relay	ESP32 Pin	Arduino UNO Pin
Relay 1/2	GPIO 15	D7
Push Button 1/2	GPIO 4	D2

Motor to Relay:

- One terminal of the motor connects to + of power supply.
- The other motor terminal connects to **COM (Common)** of the relay
- **NO (Normally Open)** of the relay goes to **GND** of power supply

Code :

```
const int relayPin = 7; // Relay control pin
const int buttonPin = 2; // Push button pin
void setup() {
    pinMode(relayPin, OUTPUT);
    pinMode(buttonPin, INPUT);
    Serial.begin(9600);
}
void loop() {
    int buttonState = digitalRead(buttonPin);
    Serial.println(buttonState);
    if (buttonState == 0) {
        digitalWrite(relayPin,HIGH);
    }
    else {
        digitalWrite(relayPin, LOW);
    }
}
```