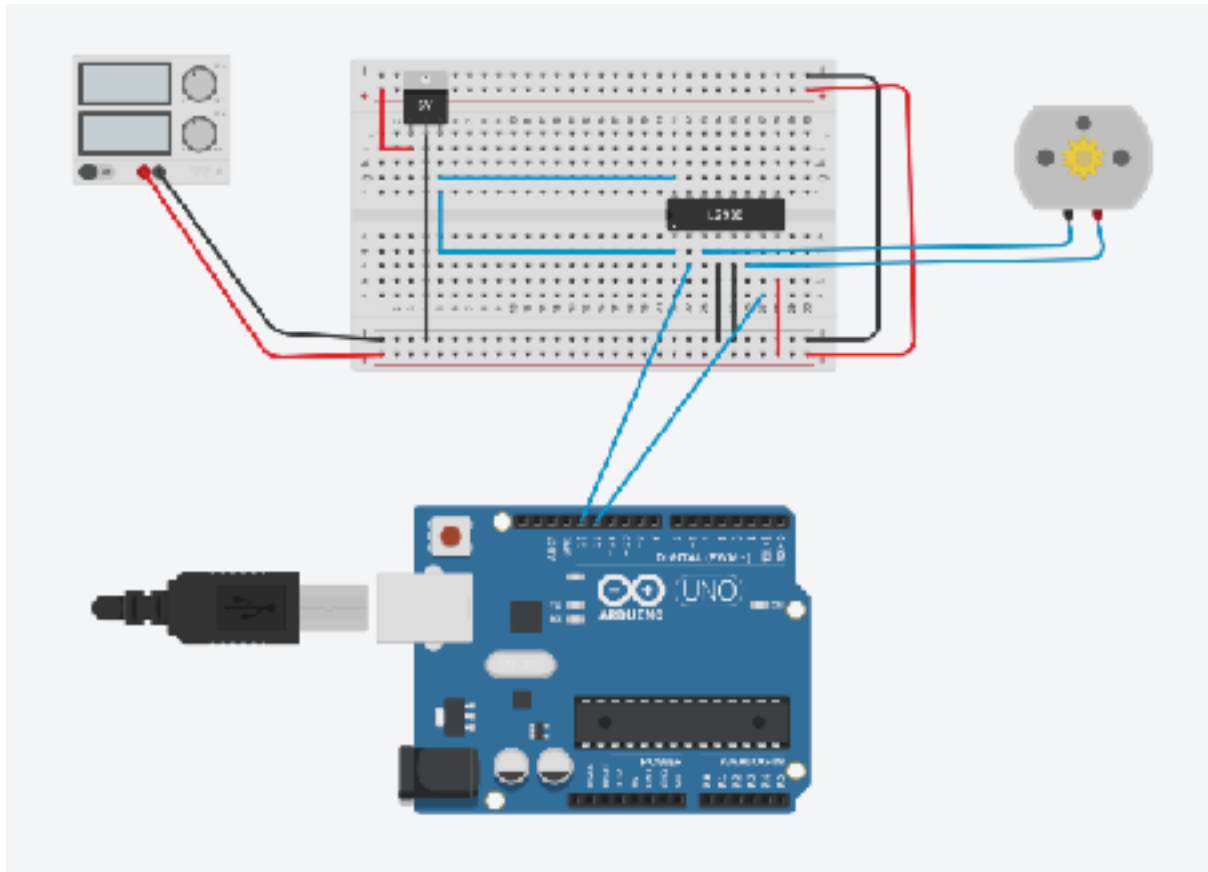


19AIE103 – Introduction to Drones

Lab Worksheet – 2

DC Motor Interfacing using Arduino

1. Design a circuit to interface DC motor using Arduino and write a control program to run the motor clock wise



Program

```
void setup()
{
  pinMode(13, OUTPUT);
  pinMode(12, OUTPUT);
}

void loop()
{
  digitalWrite(12, HIGH);
  digitalWrite(13, LOW);
}
```

2. For the the circuit in Q. No. 1, write an Arduino program to control the motor to rotate clockwise 1 sec and anti-clockwise 1 sec in a continuous mode

Program

```
void setup()
{
  pinMode(13, OUTPUT);
  pinMode(12, OUTPUT);
}

void loop()
{
  digitalWrite(12, HIGH);
  digitalWrite(13, LOW);
  delay(1000);
  digitalWrite(12, LOW);
  digitalWrite(13, HIGH);
  delay(1000);
}
```

Assignment

1. Design a circuit and write an program to interface and actuate two DC motors using L293D and Arduino.
2. Interface a switch and write an Arduino program for the above circuit to control the motor actuation using a switch. If the switch is on motor in channel 1 should run else motor in channel 2 should run.