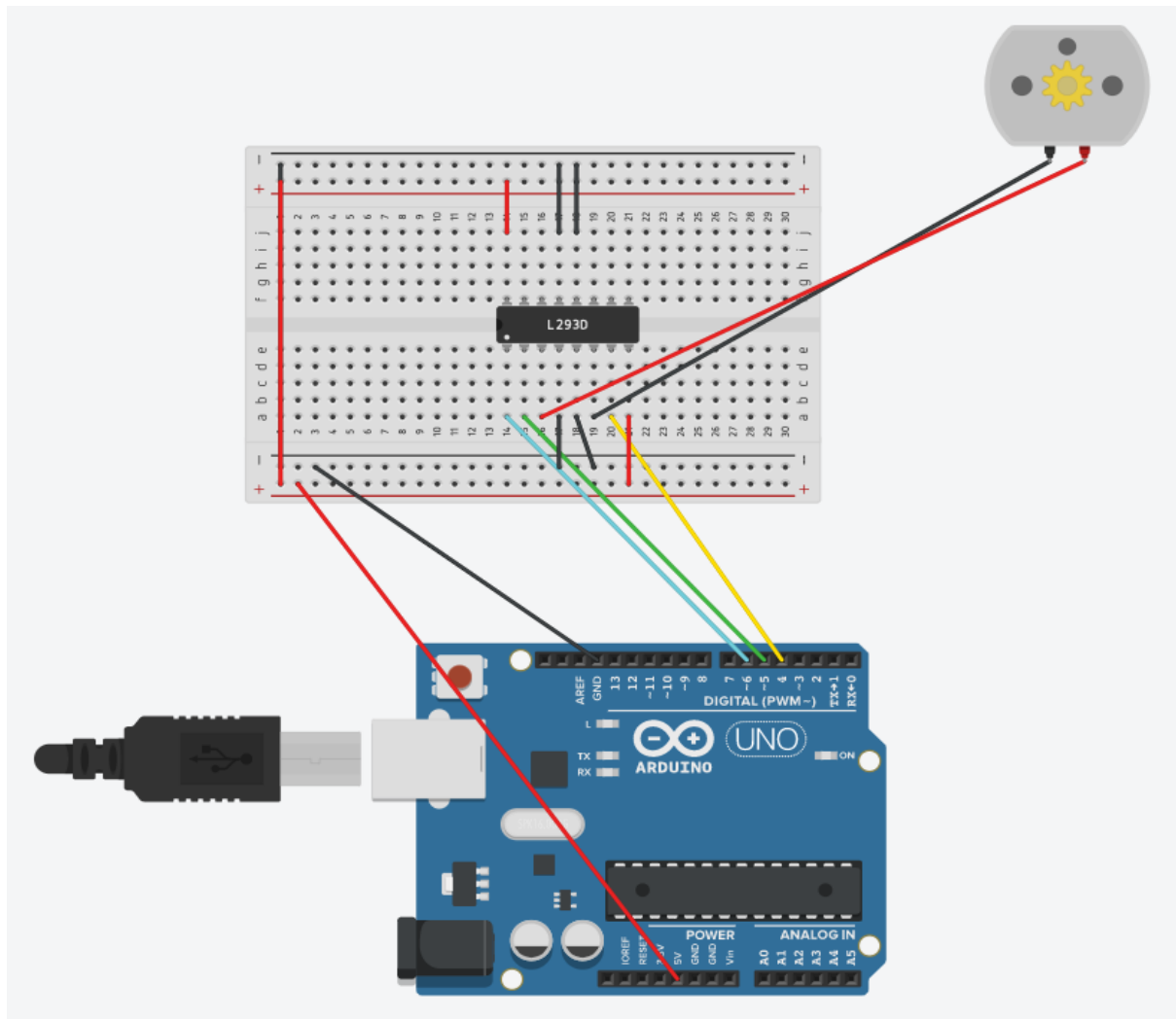Q1


```
#define MOTOR_D1_PIN 4

#define MOTOR_D2_PIN 5

#define MOTOR_PWM_PIN 6


void setup() {

 Serial.begin(9600);

 pinMode(MOTOR_D1_PIN,OUTPUT);

 pinMode(MOTOR_D2_PIN,OUTPUT);

 pinMode(MOTOR_PWM_PIN,OUTPUT);

}

void loop() {

  delay(1000);
```

```
}

int work(int run){
 if (run>0){
 digitalWrite(MOTOR_D1_PIN,HIGH);
 digitalWrite(MOTOR_D2_PIN,LOW);
 analogWrite(MOTOR_PWM_PIN,run);

 }
 else if (run ==0){
 digitalWrite(MOTOR_D1_PIN,HIGH);
 digitalWrite(MOTOR_D2_PIN,LOW);
 analogWrite(MOTOR_PWM_PIN,run);

 }
 else if (run<0){
 digitalWrite(MOTOR_D1_PIN,HIGH);
 digitalWrite(MOTOR_D2_PIN,LOW);
 analogWrite(MOTOR_PWM_PIN,run);
 }
 Serial.print("speed=");
 Serial.println(run);
}

void serialEvent(){
 int speed = Serial.parseInt();
 Serial.println("Recieve");
 Serial.println(speed);
 work(speed);
}
```
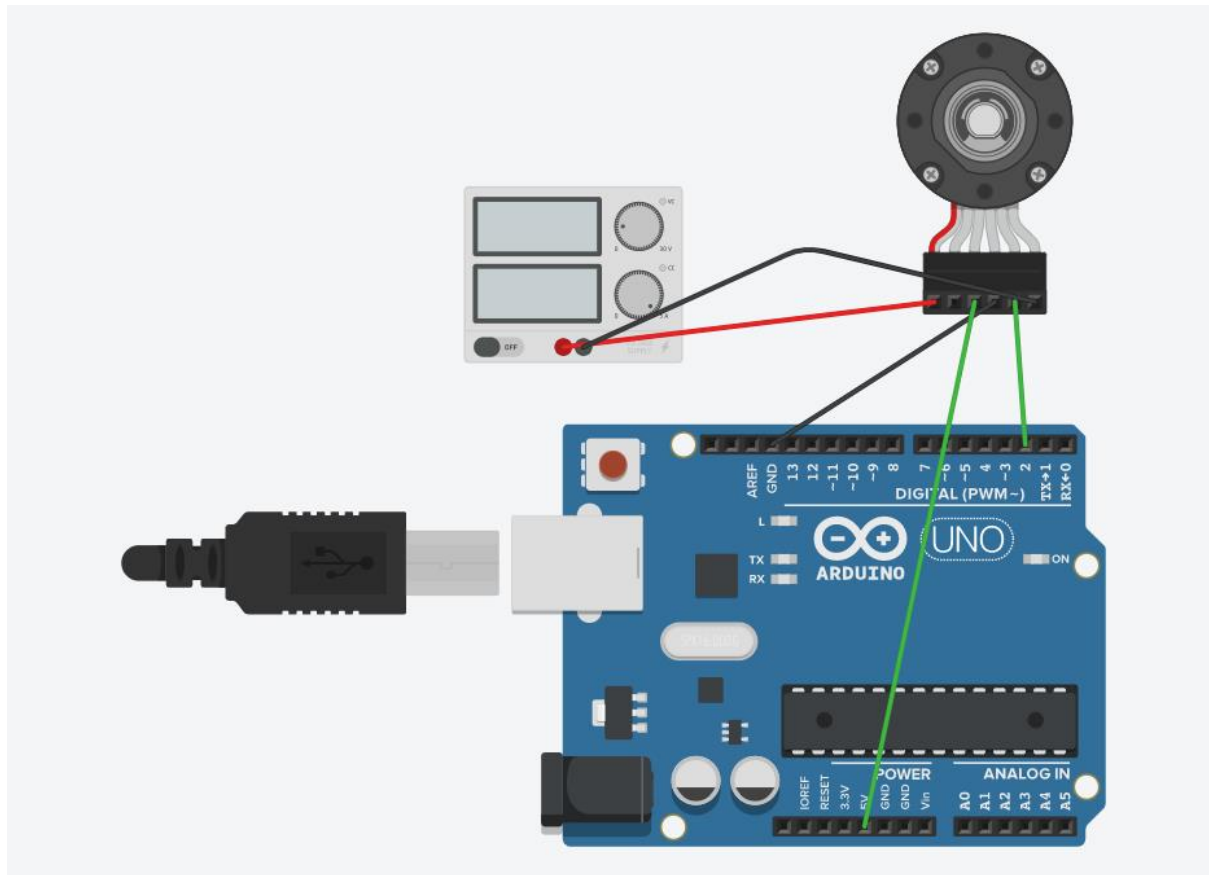
Q2


```
int count = 0;
void setup()
{
 pinMode(2, INPUT_PULLUP);
 Serial.begin(9600);
 attachInterrupt(digitalPinToInterrupt(2),W,RISING);
}
void loop()
{
 Serial.println(count);
 delay(1000);
  }
```

```
void W(){
  count++;
}
```