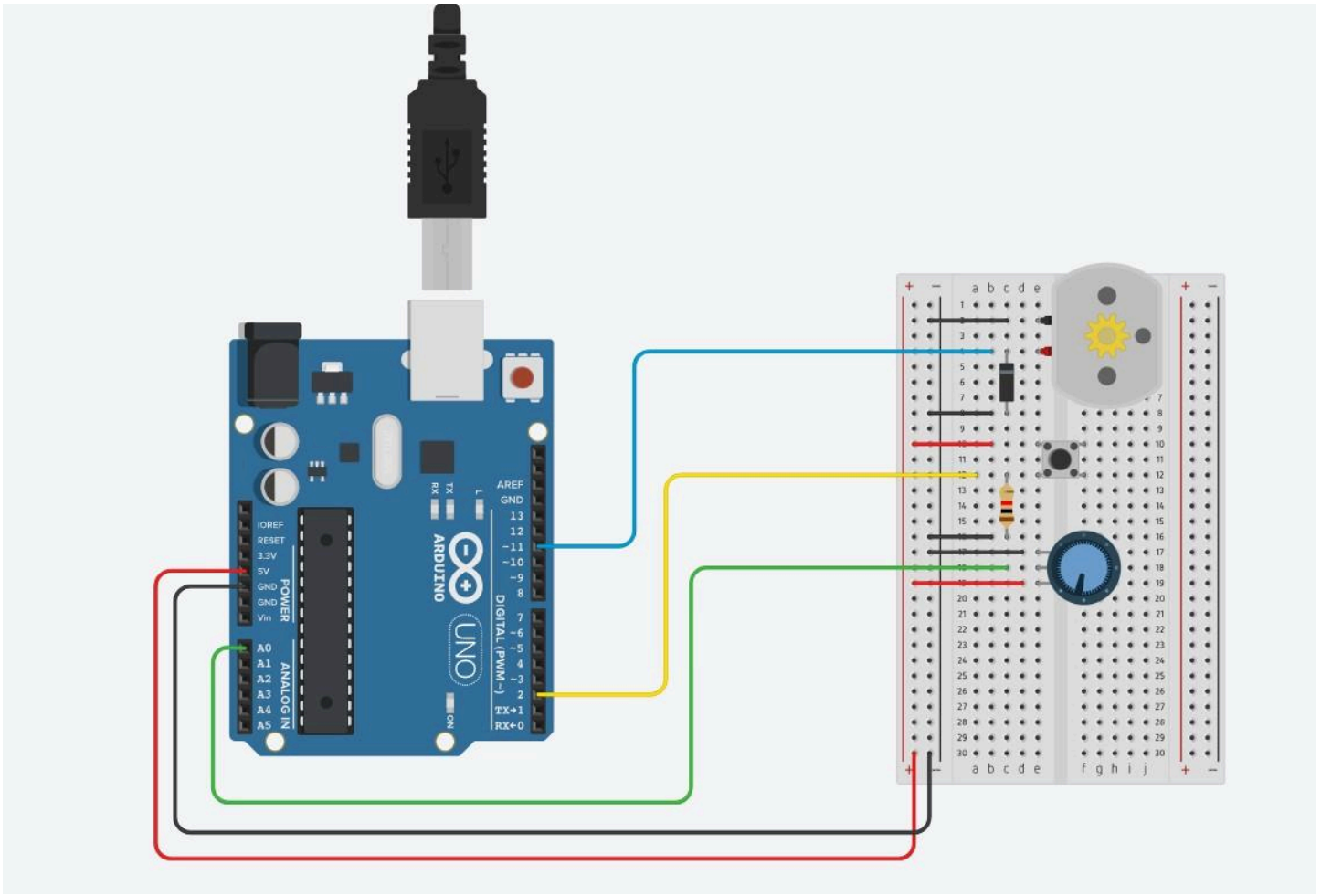


```
const int motorPin = 11;
const int buttonPin = 2;
const int potPin = A0;

int prevSwitchState = 0;
bool motorOn = false;
int motorSpeed = 0;

void setup()
{
pinMode(motorPin, OUTPUT);
pinMode(buttonPin, INPUT);

Serial.begin(9600); // enable serial communication
}

void loop()
{
// Read button state
  int switchState = digitalRead(buttonPin);

  // Toggle motor ON/OFF on button press
  if (switchState == HIGH && switchState != prevSwitchState) {
    motorOn = !motorOn; // switch between true and false
  }
```

```
  // Read potentiometer value
  int sensorVal = analogRead(potPin);

  // Set motor speed
  if (motorOn == true) {
    motorSpeed = map(sensorVal, 0, 1023, 0, 255);
    analogWrite(motorPin, motorSpeed);
  }
  else {
    motorSpeed = 0;
    analogWrite(motorPin, motorSpeed);
  }

  // Print motor speed percentage
  int percentSpeed = map(motorSpeed, 0, 255, 0, 100);
  Serial.print("Motor speed (%): ");
  Serial.println(percentSpeed);

  // Save previous state
  prevSwitchState = switchState;
}
```