

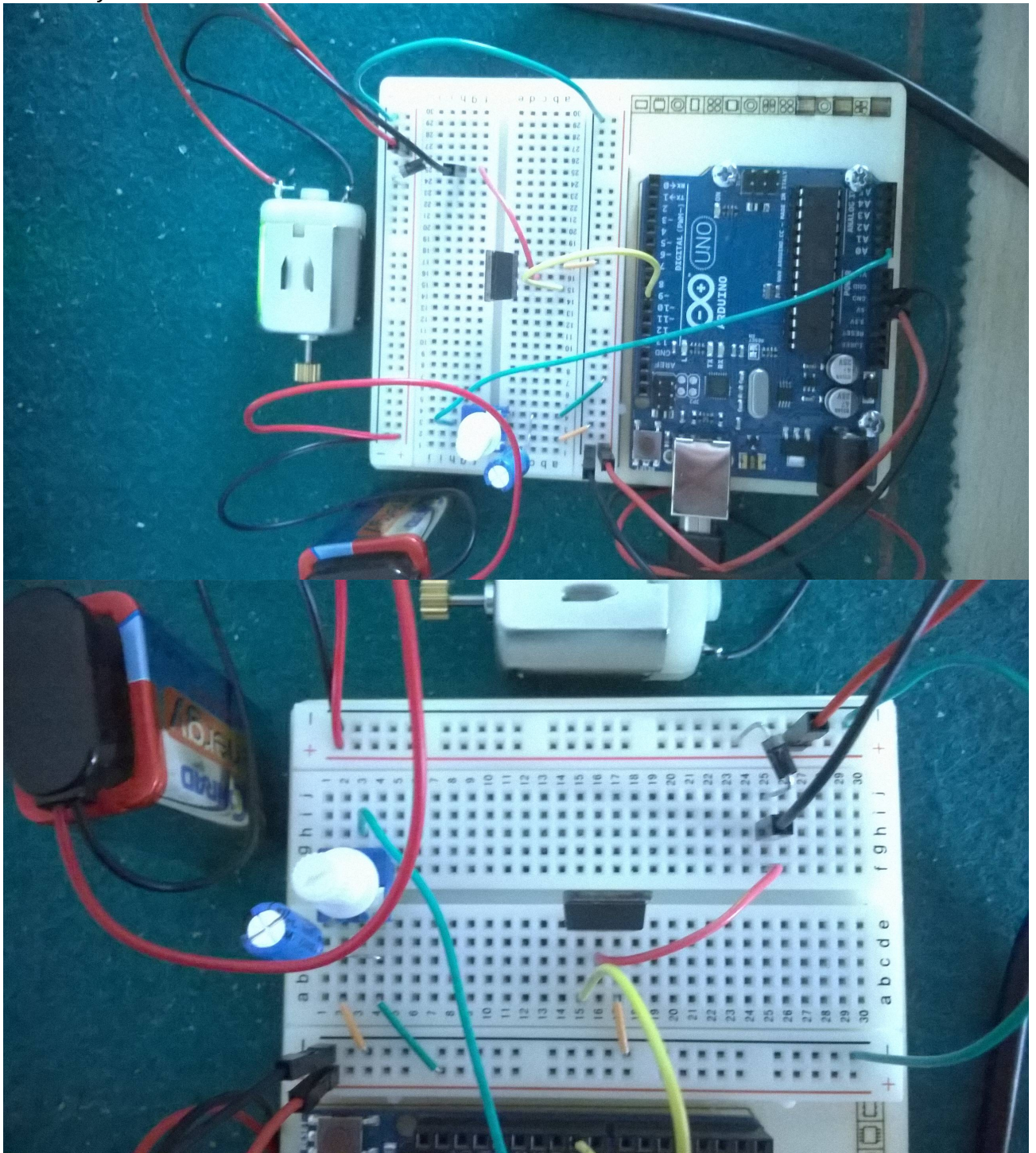
Use potentiometer to control motor's speed

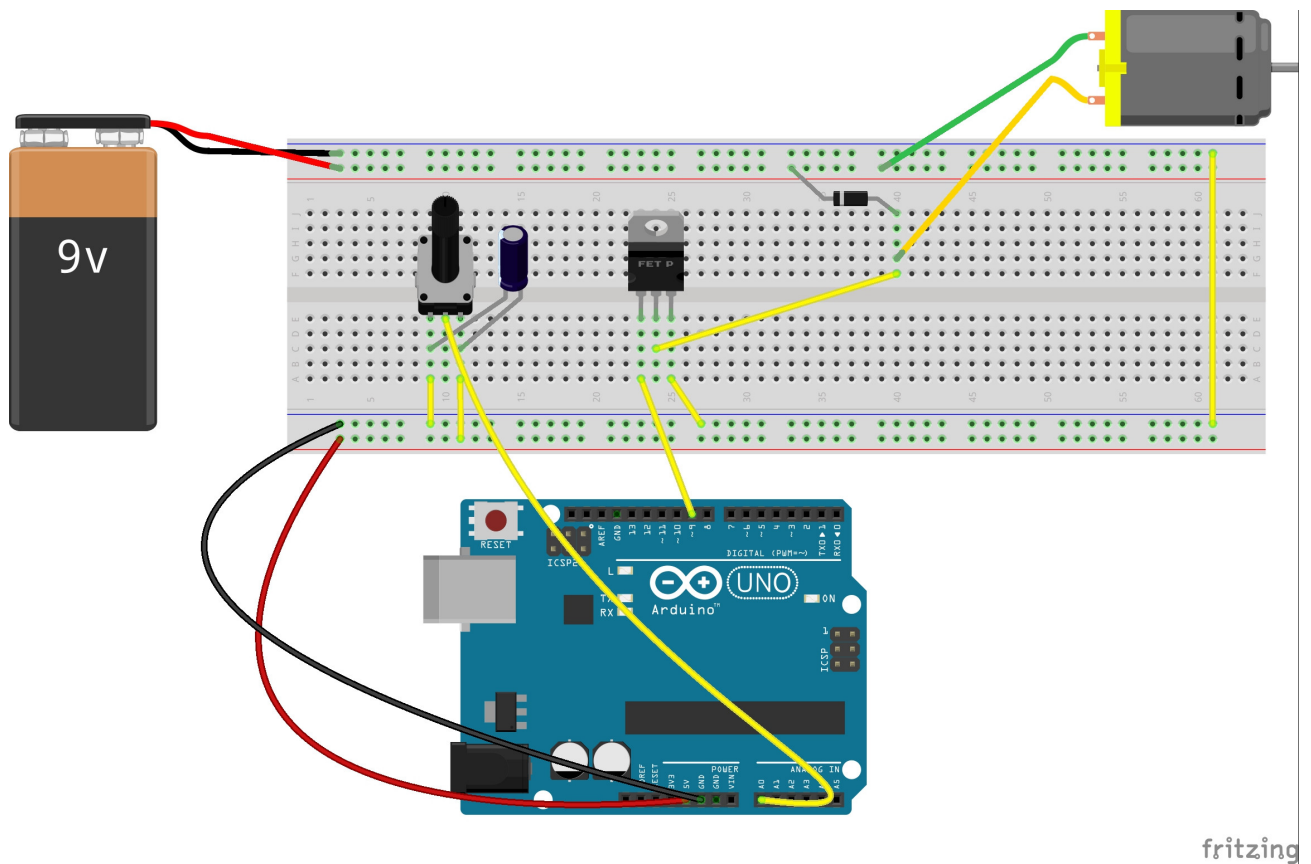
Following the arduino starter kit, one of the projects uses a push button to on/off a motor.

1 In the end they suggest to try to use a potentiometer to control the speed of the motor. I already did it, but I am not sure how I should use the capacitors(I placed one with the pot).

In one of the previous examples they used 2 100uF capacitors(one for the pot. and another for a servo motor) and I was wondering if this would be the same case.

This is my circuit:





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The code:

```
const int POT_PIN = A0;
const int MOTOR_PIN = 9;
int motorSpeed = 0;
int potVal = 0;

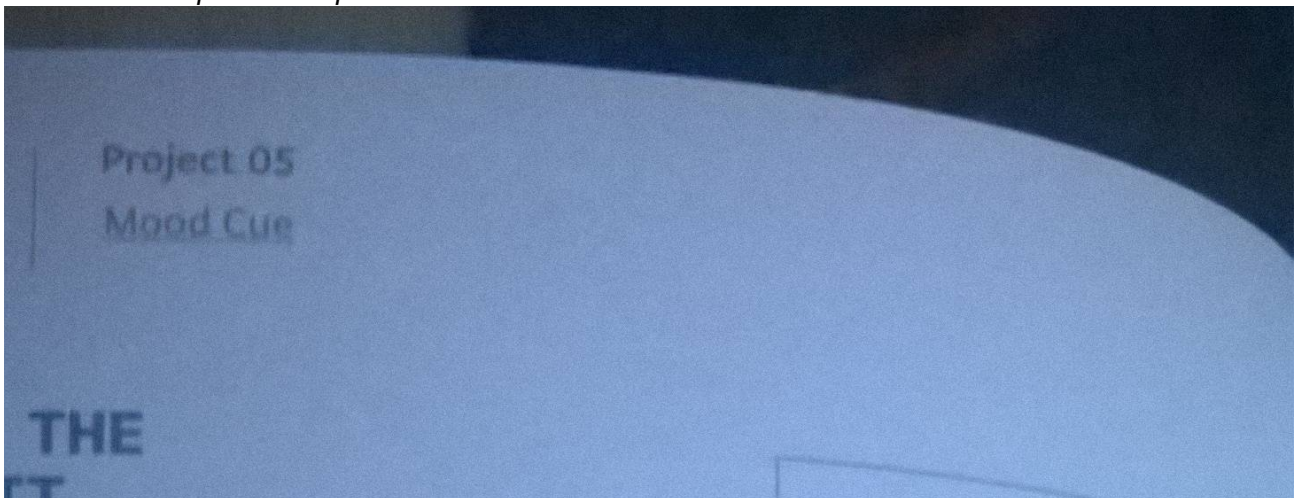
void setup()
{
  pinMode(MOTOR_PIN, OUTPUT);
}

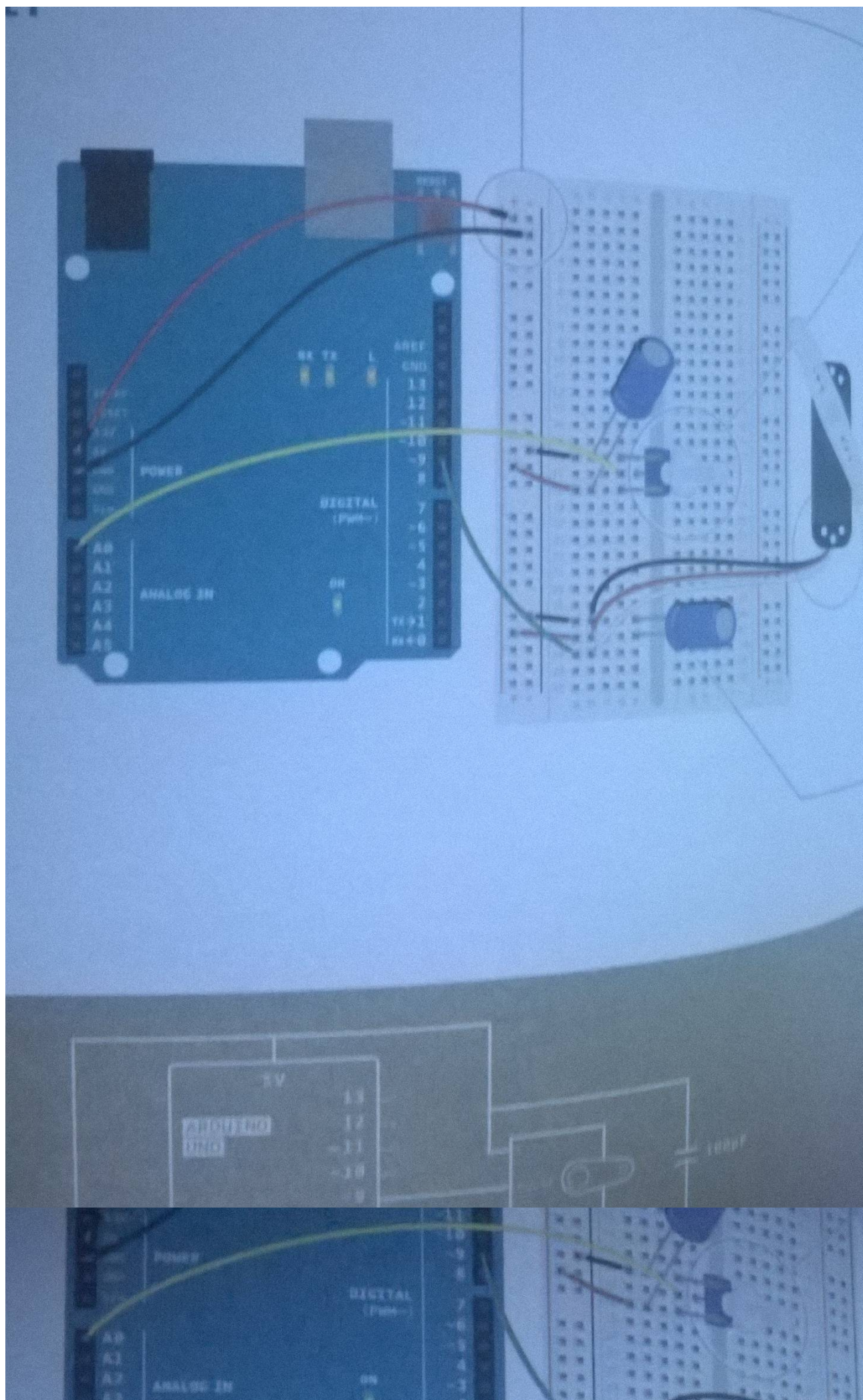
void loop()
{
  potVal = analogRead(POT_PIN);

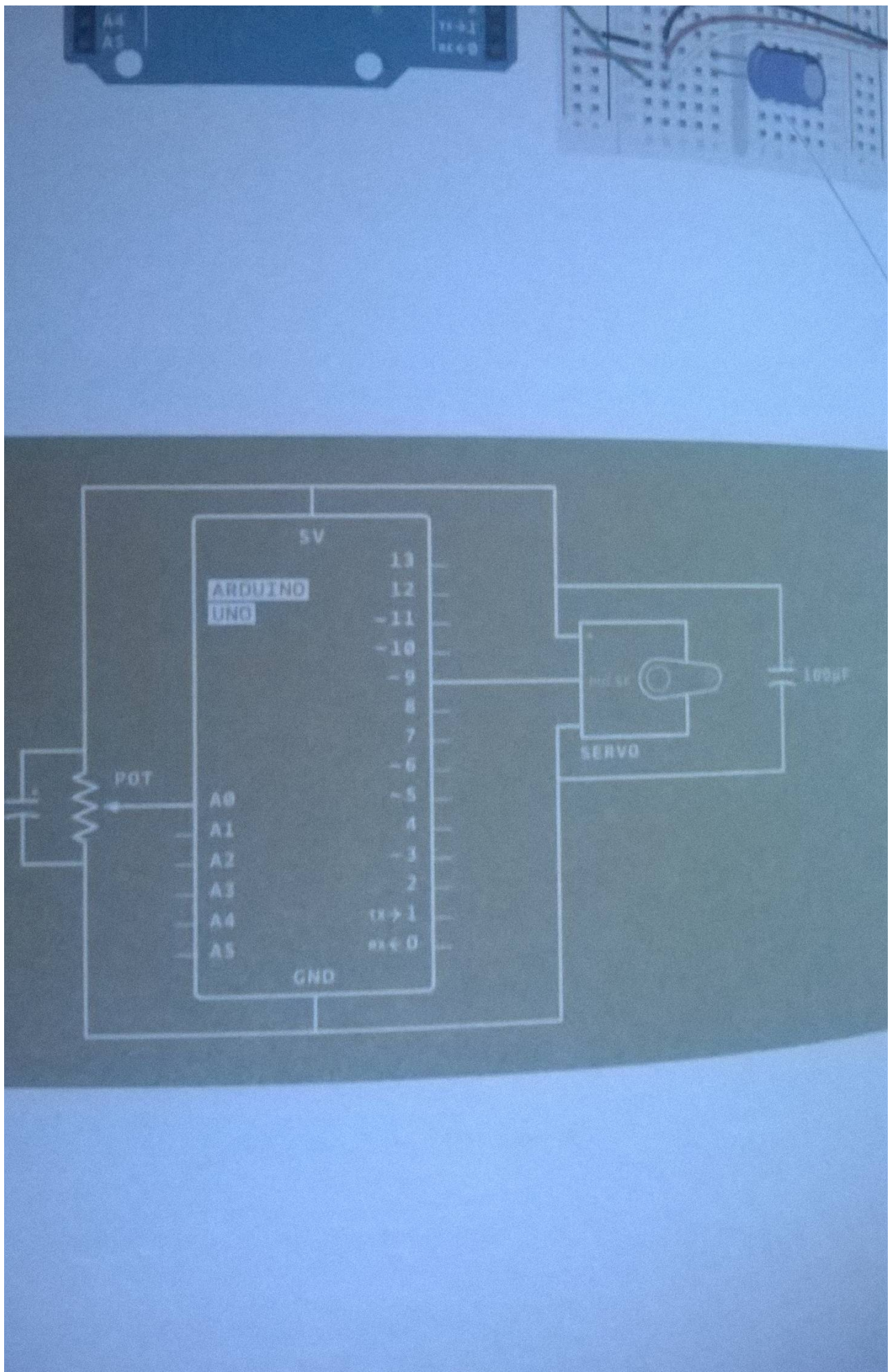
  motorSpeed = map(potVal, 0, 1023, 0, 255);

  analogWrite(MOTOR_PIN, motorSpeed);
}
```

Previous example with capacitors:







Code:

```
#include <Servo.h>

Servo myServo;

int const POT_PIN = A0;
int potVal;
int angle;

int alpha = 0.8;
int rawReading;

void setup()
{
    myServo.attach(9);

    Serial.begin(9600);
}

void loop()
{
    rawReading = analogRead(POT_PIN);
    potVal = alpha*potVal + (1-alpha)*rawReading;
    Serial.print("potVal: ");
    Serial.print(potVal);

    angle = map(potVal, 0, 1023, 0, 179);
    Serial.print(", angle: ");
    Serial.println(angle);

    myServo.write(angle);
    delay(15);
}
```