CHEAT SHEET (ACTUATOR)

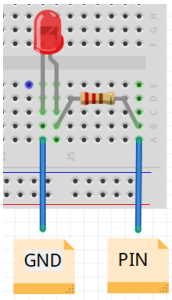
LED: 5mm Red LED (resistor size: 150Ω)

```
int LEDPin = 2;                    //the used pin

void setup() {
  pinMode(LEDPin, OUTPUT);         //set pin as OUTPUT
}

void loop() {
  //turn the LED off (LOW) or on (HIGH) *
  digitalWrite(LEDPin, HIGH);

  //turn it gradually from off (0) to on (255) **
  analogWrite(LEDPin, 180);
}
```



GND: Short leg
PIN: Long leg

*PIN: 2, 4-7, 10, A2-A5
**PIN: 5, 6, 10

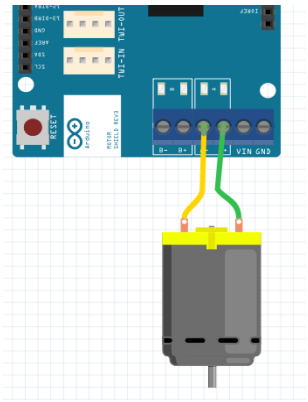
DC-Motor:

```
int motorASpeed = 3;                //PWM A
int motorADirection = 12;           //DIR A

void setup() {
  //set all motor pins to PUTPUT
  pinMode(motorASpeed, OUTPUT);
  pinMode(motorADirection, OUTPUT);
}

void loop() {
  //DIRECTION: Turn clockwise = HIGH,
  //turn counter-clockwise = LOW
  digitalWrite(motorADirection, HIGH);

  //SPEED: no speed = 0, full speed = 255
  analogWrite(motorASpeed, 150);
}
```



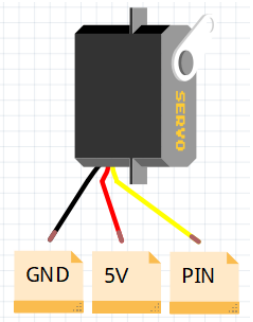
*for the pins used for motor B, see the motor-shield

Servo-Motor:

```
#include <Servo.h>          //include library
Servo servoMotor;           //create new servo object
int servoPin = 2;           //the used pin

void setup() {
  //attach the used pin to the servo object
  servoMotor.attach(servoPin);
}

void loop() {
  //turn the servo to a position (value: 0-179)
  servoMotor.write(90);
}
```



*PIN: 2, 4-7, 10, A2-A5

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