

Part 2

Lesson

8

Servo

Overview

Servo is a type of geared motor that can only rotate 180 degrees. It is controlled by sending electrical pulses from your UNO R3 board. These pulses tell the servo what position it should move to. The Servo has three wires, of which the brown one is the ground wire and should be connected to the GND port of UNO, the red one is the power wire and should be connected to the 5v port, and the orange one is the signal wire and should be connected to the Dig #9 port.

Component Required:

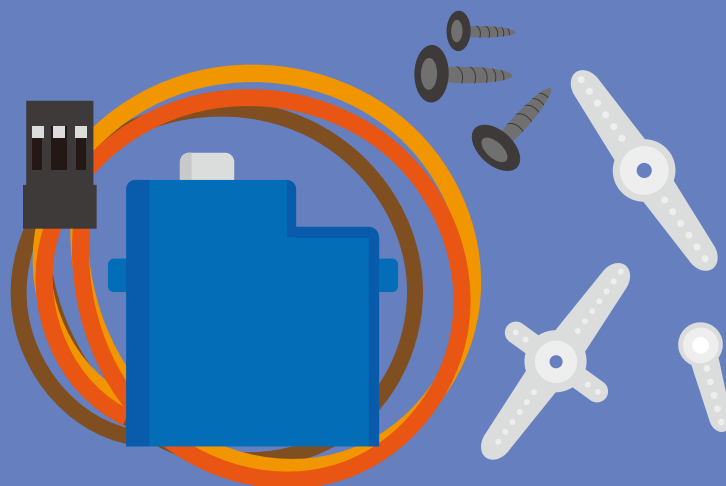
- (1) x Elegoo Uno R3
- (1) x Servo (SG90)
- (3) x M-M wires (Male to Male jumper wires)

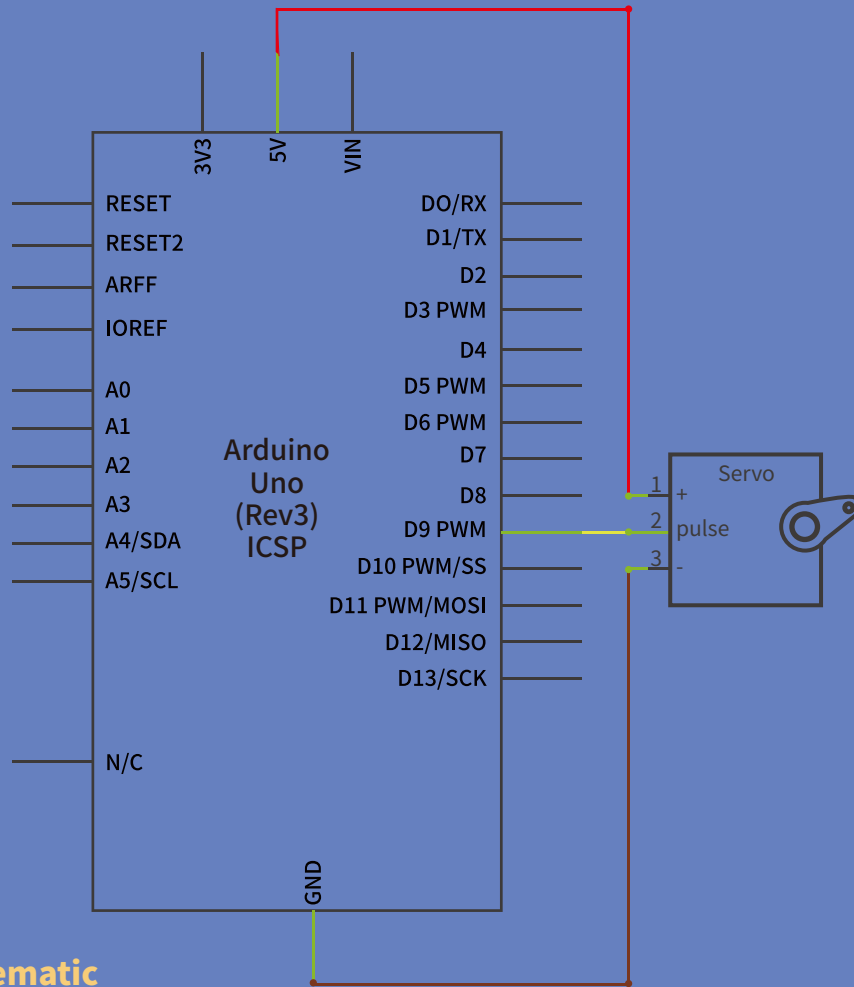


Component Introduction

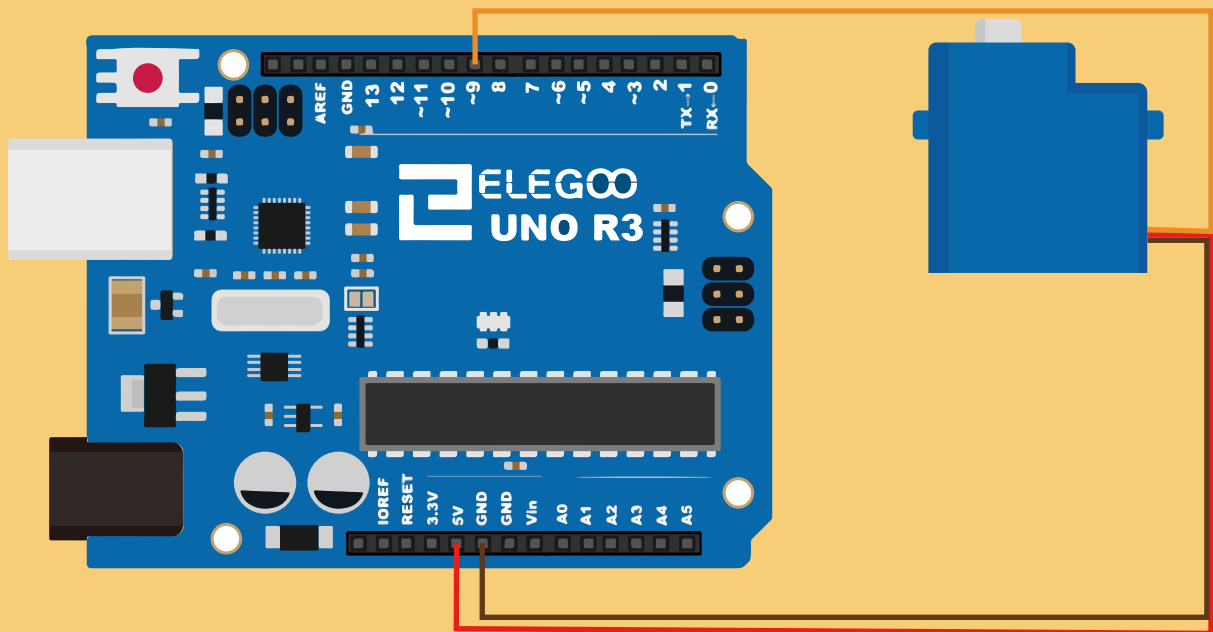
SG90

- Universal for JR and FP connector
- Cable length : 25cm
- No load; Operating speed: 0.12 sec / 60 degree (4.8V), 0.10 sec / 60 degree (6.0V)
- Stall torque (4.8V): 1.6kg/cm
- Temperature : -30~60'C
- Dead band width: 5us
- Working voltage: 3.5~6V
- Dimension : 1.26 in x 1.18 in x 0.47 in (3.2 cm x 3 cm x 1.2 cm)
- Weight : 4.73 oz (134 g)





Connection Schematic



Wiring diagram

Code

- After wiring, please open the program in the Folder **Servo** where the course is located and click UPLOAD to upload the program. See Lesson 5 in part 1 for details about program uploading if there are any errors.
- Before you can run this, make sure that you have installed the **<Servo>** library or re-install it, if necessary. Otherwise, your code won't work.
- For details about loading the library file, see Lesson 5 in part 1 too.

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