T010051 – Servo Module

The **Servo Module** is a high quality servo with the **standard TinkerKit 3pin connector** to be plugged in the Sensor Shield. The best choice to add Robotics & Mechatronics to your project.

Servos are composed of an electric motor with a gearbox mechanically linked to a potentiometer. Continuous Rotation Servos move forward and backward continuously instead of moving to a position. The direction and the speed of this movement can be controlled via your sketch. TinkerKit and Arduino control the Servo using the Servo Library. The electronics inside the servo translate the width of the pulse into movement.

Tis kind of servos can be calibrated with a potentiometer, accessible through a small hole right beside where the cable comes out. In the first example sketch the servo is set to a position of 90. In this position the servo should not move or make noise at all. Adjust the potentiometer in order to calibrate the servo.

To move the servo set the position value to 0 for one direction or to 180 for the other direction. Remember: a value of 90 will stop the servo. In order to control the speed of your movement put in a number between 0 – 89 for one direction or 91 – 180 for the other direction.

Two of this servos can be used to drive a simple robot.

Module Description:

Modulation	Analog
Torque	5V (3.30 kg-cm)
Speed	5V 0.17 sec/60°

Weight	44g
Dimensions	L 42mm / W 20.5mm / H 39.5mm
Rotation Angle	Continous
Connectore Type	TinkerKit

This module is an **ACTUATOR**. The connector is an **INPUT** which must be connected to one of the **OUTPUT** connectors on the **TinkerKit Shield**.

This example sets the position of a Continous Rotation Servo connected to O0 on the TinkerKit Shield to 90 for calibrating the servo.