# Using the Smart Servo Programmer





There 4 buttons on the bottom of the board, a switch on the top left and 2 connectors on the top right.

The switch will allow you to change the servo between Continuous and Servo Mode when following the programming instruction.

The 4 buttons at the bottom of the board are used to test test and program the servo:

#### **"S" Test Button**

This button has 3 options:

• 1st press - Automatic Sweep Mode

In Standard Mode (S) - it will sweep between the limits

In Continuous Mode (C) – it will sweep (Speed and direction)

- 2nd press Manual Test Mode
- 3rd press Return to default state

**"P" Program Button** 

"L" Left Side Position

**"R" Right Side Position** 

# Using the Servo Programmer



- 1. Using the power pack or external power source provide power to one of the 2 connectors making sure the red wire is on the plus + pin and the black wire is on the minus pin.
- 2. Turn on the power source.
- 3. The servo programmer will flash to show you that it is powered.
- 4. Connect your servo to the other connector making note of the wires and pin connections.
- 5. Press on the "S" button, your servo will either move back and forth at a slow speed (servo mode) or if the servo is moving back and forth quickly (sweep mode) it is in continuous mode. The "S" LED will flash quickly.
- 6. If you press the "S" button a second time (it will flash, and the "P" button will light up) the servo programmer will become a controller allow you to position the servo for building convenience. The Left (L) and Right (R) buttons send the servo to the maximum allowed position in each direction. If the servo is in continuous mode it will spin continually. The "P" button will move the servo to the middle position (like the 0.5 position value in your code)
- 7. To turn of the servo programmer simply press the S button again.

# Changing the Servo from Standard mode to Continuous mode

1. Adjust the switch in the top left-hand corner to either C (continuous) or S (Standard) and hold down the "P" button for 5 seconds. The board will flash to indicate that the programmed mode has changed.

### Setting a custom mode (limit) for the servo motor.

Note: you cannot place a left or right rotation within 20 degrees of the center position, and you can only rotate 135 degrees maximum in each direction from the centre.

Begin with the servo connected to the programmer

- 1. Turn on the programmer.
- 2. Slide the mode switch to" S" position.
- 3. Press and release the S button twice to enter Manual Mode.
- 4. Press (P) the PROGRAM button to center the servo at 0°.
- 5. Press and release the S button once to leave the test mode.
- 6. Manually rotate the servo to the desired left limit position.
- 7. Press and release the Left button. The Left LED will illuminate if the position is valid.
- 8. Manually rotate the servo to the desired right limit position.
- 9. Press and release the Right button. The RIGHT LED will illuminate if the position is valid.
- 10. After both limits are set, press and release the "P" Program button. The Program LED should blink and then stay solid indicating success.

## **Resetting to Default**

- 1. Connect Smart Servo to the programmer.
- 2. Turn on the programmer.
- 3. Slide the mode switch to "S" position.
- 4. Press and hold the" P" button for at least 5 seconds.
- 5. The LEDs will blink and then the P LED will stay solid indicating success.