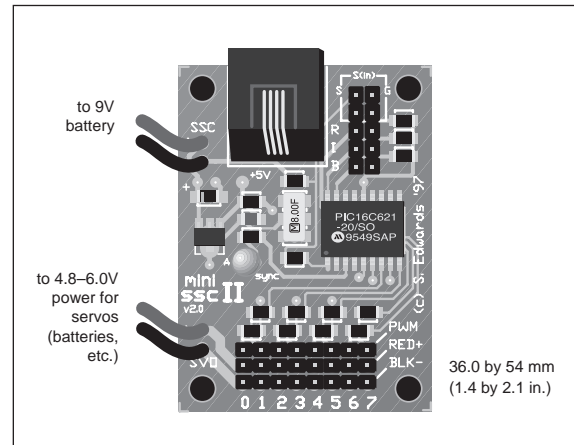


Serial Servo Controller (SSC) for R/C Servos

Use a computer's serial port to control standard R/C servos for robotics, automation, and animatronics. Mini SSCs accept serial input at 2400 or 9600 bps, output eight rock-steady channels of servo-control signals.



Easy Motion Control

R/C servos are the positioning motors used in radio-control cars, boats, and planes. They are popular for small-scale robotics, automation, and special effects because of their low cost, small size, and high precision.

Our Mini SSC II allows you to control up to eight servos through a computer's serial port using simple instructions at 2400 or 9600 bps. Program your computer to send three bytes—

<255 (sync)> <servo#> <position>

...and the Mini SSC moves that servo to the specified position, and keeps it there until told to change the position. Two Mini SSCs can share the same serial port to control up to 16 servos, or, you may special order Mini SSCs with higher servo numbers and control up to 255 servos. Contact us for details.

Most Mini SSC applications require you to write your own programs for the host computer you plan to use. The manuals include examples in BASIC for Stamp[®] microcontrollers and PCs running DOS. But you can use any combination of hardware and software that can drive an RS-232 serial port. If you don't want to program, visit our web page and follow the links to third-party software packages for Windows (www.seetron.com/ssc.htm).

Neat Features

The Mini SSC II is an assembled and tested module that features a convenient phone-style jack for serial input, three-conductor servo connectors, power/sync LED to verify correct operation, and switchable range/resolution from 90° at 0.36° per unit or 180° at 0.72°/unit.

Ordering Information

Assembled Mini SSC II (SSC-ASD2)	44.00
PC (DB9) serial cable for Mini SSC II (SSC-CBL)	6.00

Table 1. Basic specifications

Power requirements (Mini SSC)	7 to 15 Vdc @ 10mA
Power requirements (servo)	4.8 to 6.0 Vdc (current varies)
Serial input connector.....	header posts (both); 6p4c phone jack (II only)
Serial input.....	RS-232, or inverted TTL/CMOS, 9600 or 2400, N81
Operating temperature.....	0° to 50°C (32° to 122°F)
Servo output connector	3-pin header, 0.1"spacing: (PWM)(+V)(GND)
Pulse frequency.....	≈60 Hz
Pulsewidth range (normal)	1.0 to 2.0 ms
Pulsewidth range (Mini SSC II, "R" jumper on)	0.5 to 2.5 ms
Pulsewidth at startup (centered)	1.5 ms
Pulsewidth resolution (normal).....	4 μs
Pulsewidth resolution (Mini SSC II, "R" jumper on).....	8 μs
Servo numbers ("I" jumper off)	0—7
Servo numbers ("I" jumper on)	8—15

Table 2. Program Examples in BASIC

The following code examples move servo number 5 to position 200. For more detailed examples, see the user manuals at www.seetron.com.

BASIC Stamp I

```
' No jumpers at "I" or "B"  
SEROUT 0,N2400,(255,5,200)
```

BASIC Stamp II

```
' No jumper at "I"; install jumper at "B"  
SEROUT 0,$4054,[255,5,200]
```

QBASIC/QuickBASIC on PC running DOS

```
' No jumper at "I"; install jumper at "B"  
OPEN "COM1:9600,N,8,1,CD0,CS0,DS0" FOR OUTPUT AS #1  
PRINT #1, CHR$(255);CHR$(5);CHR$(200);
```

Table 3. Sources for Servos, Robotic Kits and Related Items

Lynxmotion (robotic kits, servos)

ph: 309-382-1816 • Net: www.lynxmotion.com

Tower Hobbies (servos)

ph: 1-800-637-4989 or 217-398-3636 • Net: www.towerhobbies.com

CK Design Tech (heavy-duty servos)

ph: 805-522-3750 • E-mail: ckdsgn@aol.com

*Preview complete
instruction manual via
Internet—
www.seetron.com*