Using the Pololu Servo Controller with the BASIC Stamp 2

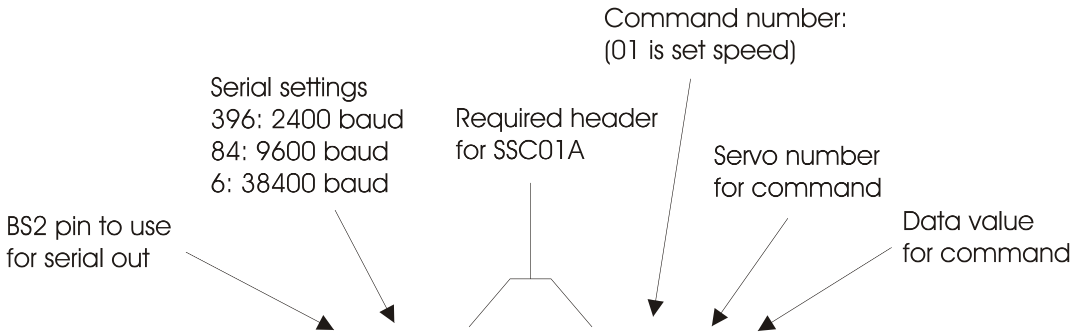
To use the Pololu servo controller with the BASIC Stamp 2, use the "serout" command. The command has several options that are explained in the BASIC Stamp manual, but only the pin, baudmode, and output data need to be specified for use with the servo controller.

In the *Pololu mode* example below, servo 0 is set to its lowest speed, and then servo 0 and 1 are moved back and forth with 10 second pauses to show the difference in speeds. In the example, the servo controller serial line is connected to I/O pin 15 of the BASIC Stamp. The second argument sets the baud rate to 9600 and sets other parameters to 8 bits, no parity, and non-inverted mode. The arguments in the square brackets are the values actually sent over the serial line. The sync byte, $80 (the $ sign indicates hex; you could also write 128), and the second byte, $01, are always necessary for controlling the servo controller. The third byte is the command, where 1 is the set speed command and 4 is the set absolute position command. The last value (or 2 values) is the argument for the command. The '1' in the first line sets the speed to 1. The 13 and 127 set the position to (13*128 + 127) = 1791, which corresponds to output pulses of about 0.9 ms.

In mini SSC II mode (with jumper in place), the commands all take the form,

```
serout 15, 84, [255, <servo-num>, <servo-pos>]
```

where <servo-num> is the servo number, from 0-15, and <servo-pos> is the servo position, from 0-254.



```
     serout 15,84,[$80,$01,$01,0,1]     'set servo 0 to lowest speed


testloop:
     serout 15,84,[$80,$01,$04,0,13,127]     'set pos servo 0
     serout 15,84,[$80,$01,$04,1,13,127]     'set pos servo 1

     pause 10000
     serout 15,84,[$80,$01,$04,0,35,127]
     serout 15,84,[$80,$01,$04,1,35,127]

     pause 10000
     goto testloop
```