

add 7 zeros to the end of the message):

```
CRC-7 Polynomial = [1 0 0 0 1 0 0 1]
message = [1 1 0 0 0 0 0 1] [1 0 0 0 0 0 0 0] 0 0 0 0 0 0 0
```

Steps 3, 4, & 5:

```

1 0 0 0 1 0 0 1 ) 1 1 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
XOR 1 0 0 0 1 0 0 1 | | | | | | | | | | | | | | | | | |
-----
1 0 0 1 0 0 0 1 | | | | | | | | | | | | | | | | | |
shift ----> 1 0 0 0 1 0 0 1 | | | | | | | | | | | | | | | | | |
      1 1 0 0 0 0 0 0 | | | | | | | | | | | | | | | | | |
      1 0 0 0 1 0 0 1 | | | | | | | | | | | | | | | | | |
      -----
      1 0 0 1 0 0 1 0 | | | | | | | | | | | | | | | | | |
      1 0 0 0 1 0 0 1 | | | | | | | | | | | | | | | | | |
      -----
      1 1 0 1 1 0 0 0 | | | | | | | | | | | | | | | | | |
      1 0 0 0 1 0 0 1 | | | | | | | | | | | | | | | | | |
      -----
      1 0 1 0 0 0 1 0 | | | | | | | | | | | | | | | | | |
      1 0 0 0 1 0 0 1 | | | | | | | | | | | | | | | | | |
      -----
      1 0 1 0 1 1 0 0 | | | | | | | | | | | | | | | | | |
      1 0 0 0 1 0 0 1 | | | | | | | | | | | | | | | | | |
      -----
      1 0 0 1 0 1 0 0 | | | | | | | | | | | | | | | | | |
      1 0 0 0 1 0 0 1 | | | | | | | | | | | | | | | | | |
      -----
      1 0 0 1 0 1 0 0 | | | | | | | | | | | | | | | | | |
      1 0 0 0 1 0 0 1 | | | | | | | | | | | | | | | | | |
      -----
      1 1 1 0 1 0 0 0 = 0x17

```

So the full command packet we would send with CRC enabled is: **0x83, 0x01, 0x17**.

5.e. Serial Servo Commands

The Maestro has several serial commands for setting the target of a channel, getting its current position, and setting its speed and acceleration limits.

Set Target (Pololu/Compact protocol)

Compact protocol: **0x84, channel number, target low bits, target high bits**

Pololu protocol: **0xAA, device number, 0x04, channel number, target low bits, target high bits**

The lower 7 bits of the third data byte represent bits 0–6 of the target (the lower 7 bits), while the lower 7 bits of the fourth data byte represent bits 7–13 of the target. The target is a non-negative integer.

If the channel is configured as a servo, then the target represents the pulse width to transmit in units of quarter-microseconds. A target value of 0 tells the Maestro to stop sending pulses to the servo.

If the channel is configured as a digital output, values less than 6000 tell the Maestro to drive the line low, while values of 6000 or greater tell the Maestro to drive the line high.

For example, if channel 2 is configured as a servo and you want to set its target to 1500 μ s ($1500 \times 4 = 6000 = 0101101110000$ in binary), you could send the following byte sequence: