

## Servo Motor Signal Timing

Understanding the square wave signal needed to control the position of a standard Radio Control (R/C) servo motor.

### I. Standard Servo Motor Wiring Connections:

Wire Color	Function
Red	Power (typically +4.5 to +6 DC, but check yours)
Black	Ground
White or Yellow	Signal In (5V TTL-type signal, for timing see below)

NOTE: The order of the above wires in the connector can vary with the manufacturer. Check your servos carefully before proceeding.

### II. Servo Motor Timing Diagram

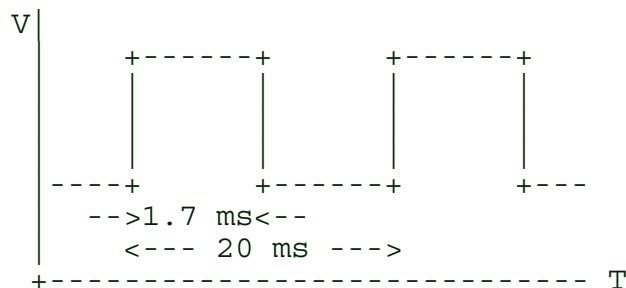
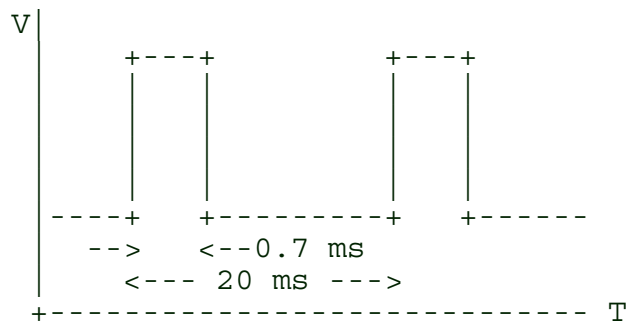


Figure 7.20: An unmodified servo is a three-wire device that takes power, ground, and a pulse-code modulated signal, such as the one shown above. Wider or thinner pulses tell the servo to move to a designated position, either clockwise or counterclockwise from center.

Excerpted from "Mobile Robots" by Jones & Flynn, page 190.  
Available at <http://www.RobotStore.com/catalog/display.asp?pid=180>.

Note: "ms" = milliseconds. 1000 ms = 1 second.

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