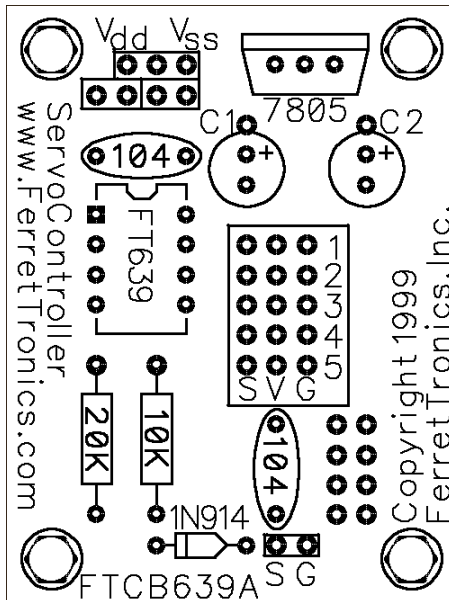


FT639 Circuit Board

General Description:

The FT639 Circuit Board is designed to make using the FT639 Servo Controller Chip as simple as possible. With only a handful of discrete components and a little time, it's easy to add servo control to your project.



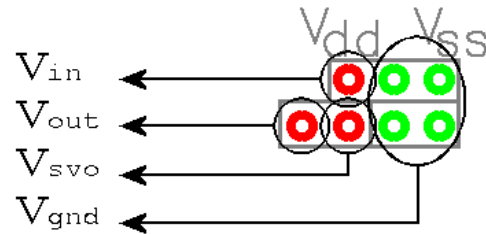
Parts List:

- (1) 20K resistor
- (1) 10K resistor
- (1) 1N914 diode
- (1) 7805 voltage regulator
- (1) 0.33 μ F electrolytic capacitor (C1)
- (1) 0.1 μ F electrolytic capacitor (C2)
- (2) 0.1 μ F ceramic capacitor
- (3) 5 x .1" SIP headers
- (1) AC adaptor or 9 volt battery

Note that 25 volt or greater capacitors should be used for C1 and C2. The purpose of these capacitors is to filter out noise from your power supply and as such, may be adjusted as needed to obtain a clean +5 volts.

Power Connection:

The circuit board will operate using either a single or a dual power supply.



With a single power supply, both the FT639 and the servos operate from the same voltage source. Often times this is the most convenient configuration. To enable a single power supply place a jumper across the Vout connection and the Vsvo connection (see diagram above).

When the voltage for the servos is higher than the FT639 requires, or when the current used by the servos dictates the need, a dual power supply is supported. Using this arrangement, power is supplied to the FT639 via the 7805 voltage regulator and a separate supply is used for the servo motors. To enable this mode, simply connect a different voltage source to the Vsvo connection; the Vout connection is unused.

Serial Connection:

The serial connection consists of two wires: ground and the serial line itself.

There are two adjacent connections at the bottom of the circuit board, labeled 'S' and 'G'. The 'S' connection is connected to the transmit pin of your serial port. The 'G' connection is connected to the ground pin of your serial port.