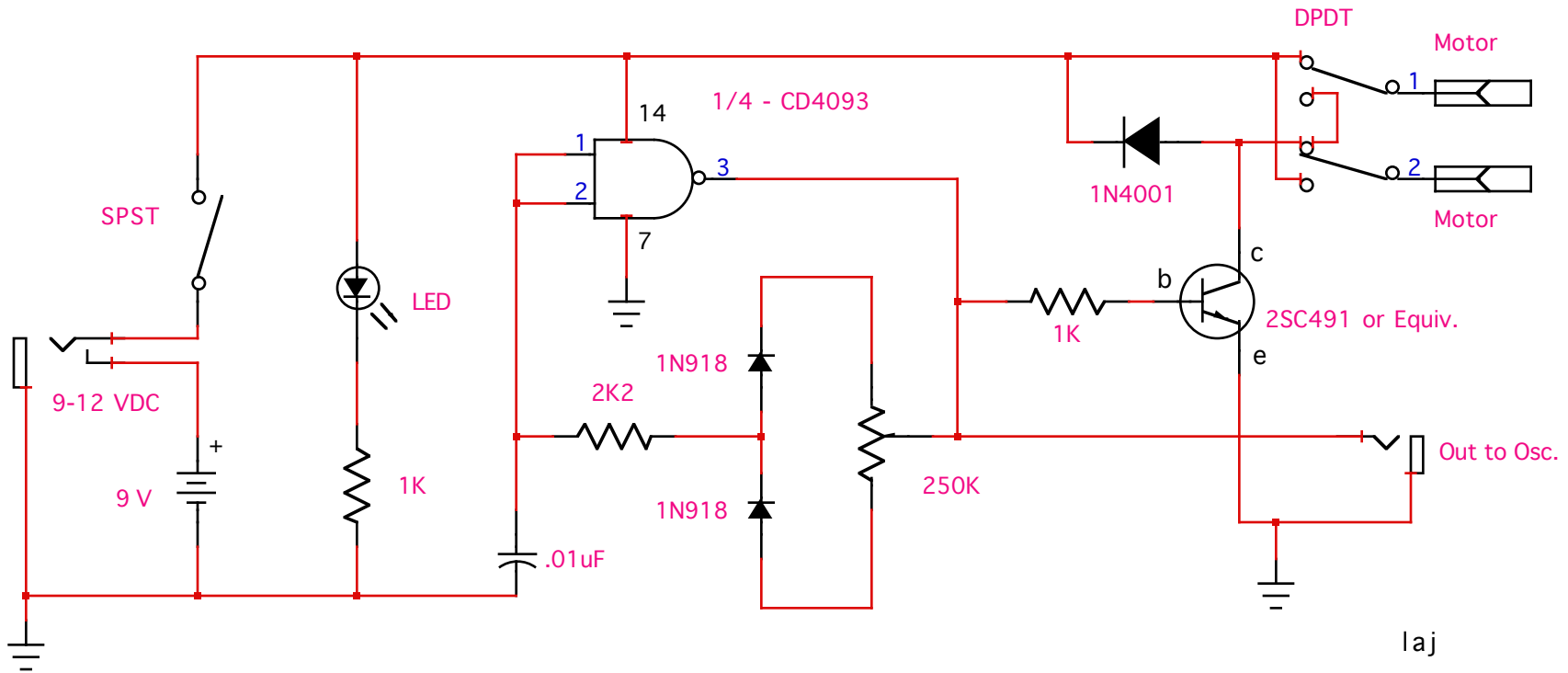


Pulse Width Modulator

Demonstrator with Oscilloscope output



Notes: This circuit is built to demonstrate how the PWM works; how the duty cycle is changed by adjusting the 250K pot, causing the speed of the motor to increase or decrease.

A transistor of greater amperage such as a IRF530 MOSFET can be used for a larger load. Also I tried a 2N3055 which worked well.

The motor I used for my demonstration draws 50mA and operates with good torque from about 10 to 750 RPM. It's from a computer printer.

The oscilloscope shows a clean square wave at 2 volts amplitude while the duty cycle changes from near 1% to 99%.

Ground all unused inputs of the CD4093. Leave unused outputs open.