

LED Infinity Mirror Controller, 32 LEDs, Multiple Patterns

coolmirza143, Thu Jun 23 2011, 02:36 pm

This circuit uses 12F675 to controls a high-power shift register, which in turn controls up to 48 LEDs at 20ma per, (~120mA per channel) in 8 channels(groups). Software controlled patterns create seamless effects from group to group. With 4-state greyscale (4 states of LED of brightness) a vast amount of patterns/effects are possible.

A single momentary-pushbutton cycles through the programmed patterns. Comes loaded with 5 patterns, and the ability to add more through re-writing the firmware.

R1 is a 10kohm (Brown, Black, Orange), 1/4w, it is the pull-up for the push-button switch

R2 - R9 are the resistors for the LEDs. The values of R2-R9 vary depending on the Color of the LEDs and the amount per channel.

Things you need for this

- programmed 12F675
- 8 pin socket
- PCB Buy One
- 8 Position Screw-Down Terminal, with 0.1" (DIP) spacing
- TPIC6C596, high power shift register
- 0.1uf Capacitor
- 16 pin socket
- 10k 1/4w resistor (Brown, Black, Orange)
- 8 resistors, value depends on LED Color Approx: 20 - 40 ohm
- 32 LEDs, choice of colors
- board mount momentary push-button
- scrap of perfboard
- Dual-Strand wire, 22 ga
- ~2" of solid strand for jumping
- 5 volt, 600ma+ PSU Optional: with barrel Jack Buy One

Complete Design:

How to make an infinite Mirror for this, See Video Below

Working Video of Project

Hex and schematic

Attachment » infinite_mirror_leds.zip

for more info see this [LINK](#)