

Life Kit Instructions

Introduction

This kit simulates Conway's Game of Life on an eight by six grid of LEDs. Power is provided by a mini USB connector.

Parts

- 1 - High Quality Lead-Free Professionally Printed Circuit Board
- 1 - ATTINY44 Microcontroller
- 48 - Red LEDs
- 1 - Mini USB connector

Assembly

This kit is simple to build, but there are a few tips to making it even easier. Start by soldering the LEDs to the printed circuit board. Be sure to orient the flat side of the LEDs with the flat side of the white LED outlines on the printed circuit board. First solder the LEDs at the four corners of the board. Make sure the LEDs are straight and flush with the board. These four LEDs act as legs to hold the board level as you solder the remaining LEDs. Solder the LEDs row by row and clip the leads off flush with the board as you go. Be sure to orient the microcontroller with the dot toward the notch on the white outline on the board. The USB connector sits snug in the two holes on the edge of the board. The leads are small, but you only have to solder the two outer ones. Be sure to not bridge any of the leads with stray solder. You should also solder the USB connector tabs on the top and bottom of the board for a good mechanical connection.

Post assembly

Simply provide power to the mini USB port using a USB charger or powered hub to start the simulations.

Further resources

You can read more about Conway's Game of Life at this link http://en.wikipedia.org/wiki/Conway%27s_Game_of_Life or scan the QR code on the right.

