The Brain Machine

MAKE Magazine #10, by Mitch Altman

Supplemental Instructions

This kit has all of the components you need to build your own Brain Machine, except the following:

3 feet of wire (1½ foot each of 2 colors)
2 AA batteries
1 pair headphones
1 stick of hot glue
silicone adhesive (to glue graphix to glasses – or just use hot glue)

Steps:

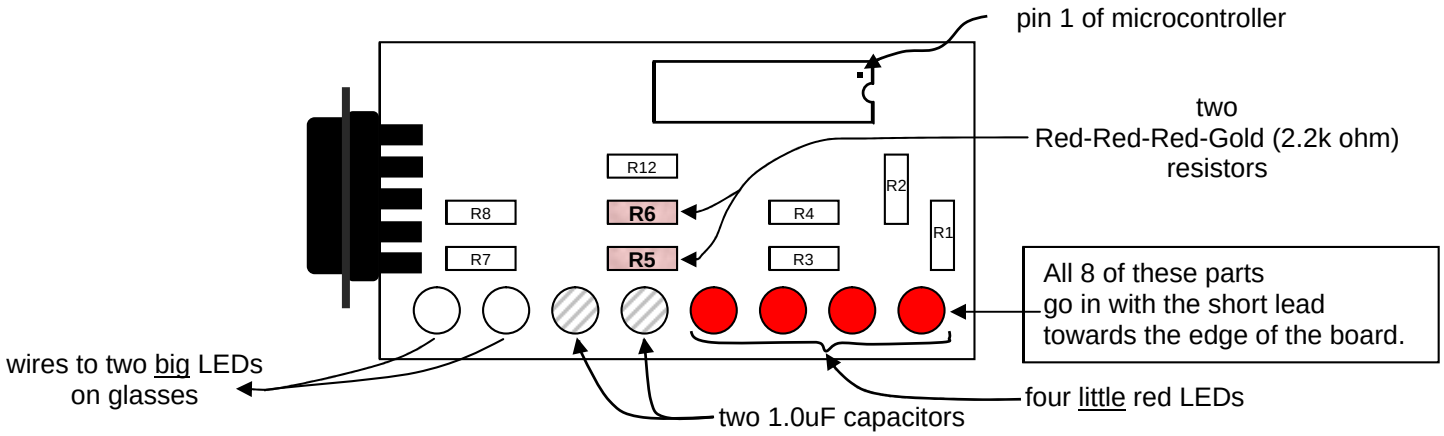
1) download the MAKE Magazine article from:
   http://downloads.oreilly.com/make/wp_brainmachine.pdf

2) follow the instructions in the article, starting with the initial steps from:
   http://ladyada.net/make/minipov3/solder.html

3) please use the latest firmware at:
   http://CornfieldElectronics.com
   click on the "maker faire" button and then click on the link to the latest SLM firmware.

Notes:

- The four little LEDs are only for testing purposes, and go on the MiniPOV board
  (the two big LEDs are mounted on the glasses, in front of your eyes)



- The battery pack has a switch on it. *Make sure it is off when you first install the batteries.*

- After placing the microcontroller chip in its socket and turning on power for the first time, the microcontroller will run the test firmware that I already programmed into it: the four test LEDs will blink quickly in sequence. If no LEDs light up, turn off power immediately and debug (chip in backwards? power attached backwards? bad solder connections?)

- This kit includes two 2.2k resistors (Red-Red-Red-Gold) instead of two 1k resistors (brown-black-red-gold) as in the article, because they work better. These go in R5 and R6.

- No need for cable ties (as in the article) – hot glue is strong enough by itself.

- Alternative cool graphix for the Brain Machine glasses are available at:
  http://CornfieldElectronics.com
  click on the "maker faire" button and click on the link to cool graphix.

- Feel free to email me with any questions:
  mitch@CornfieldElectronics.com