

The Brain Machine

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Assembly Instructions

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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

Notes:

- An annotated version of the original article is available for free download from my website:
http://www.tvbgone.com/mfaire/slm/BM_article_updated.pdf
- Changes from the original are highlighted with arrows.**
- Some differences between the updated assembly instructions from the original:
 - R5 and R6 are 2.2k resistors (Red-Red-Red-Gold) instead of 1k resistors (brown-black-red-gold) because they work better.
 - No need for cable ties or silicone adhesive – hot glue is where it's at!
- 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)
*Note: some kits come with only **big** LEDs, so use four of them for these test LEDs.*
- 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 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?)
- If you want to change or hack the firmware, 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.
- Optional:** 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.
Use hot glue instead of silicone adhesive to glue the graphix (it's easier – hot glue rocks!).
- Feel free to email me with any questions:
mitch@CornfieldElectronics.com

This drawing shows where all of the parts go for the Brain Machine:

