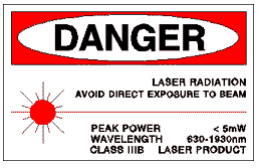
Analog Laser Show

Using only few, cheap components, you can build your own Laser Show

Components

- 1 piece of +5V Power Supply or 3pcs of 1.5V alkaline battery
- 2 pcs old walkman motors (works on low voltage, small, silent)
- 1 piece of laser pointer
- 2 pcs of 1x1cm mirrors
- 2 pcs of 1KΩ potentiometers (or 470Ω)
- 1 piece of 100Ω - 200Ω trimmer
- 1 piece of dual switch, with 2 positions (6 pins, **Fig.1**)
- 1 piece of plastic box (or wood) for the device
- some wires

Fig. 1



Settings:

Mechanical:

Mount the 2 mirrors on the shaft of the motors with super-glue. Place the motors and the laser pointer, in a plastic box and fix it, like in the **Fig.2.**

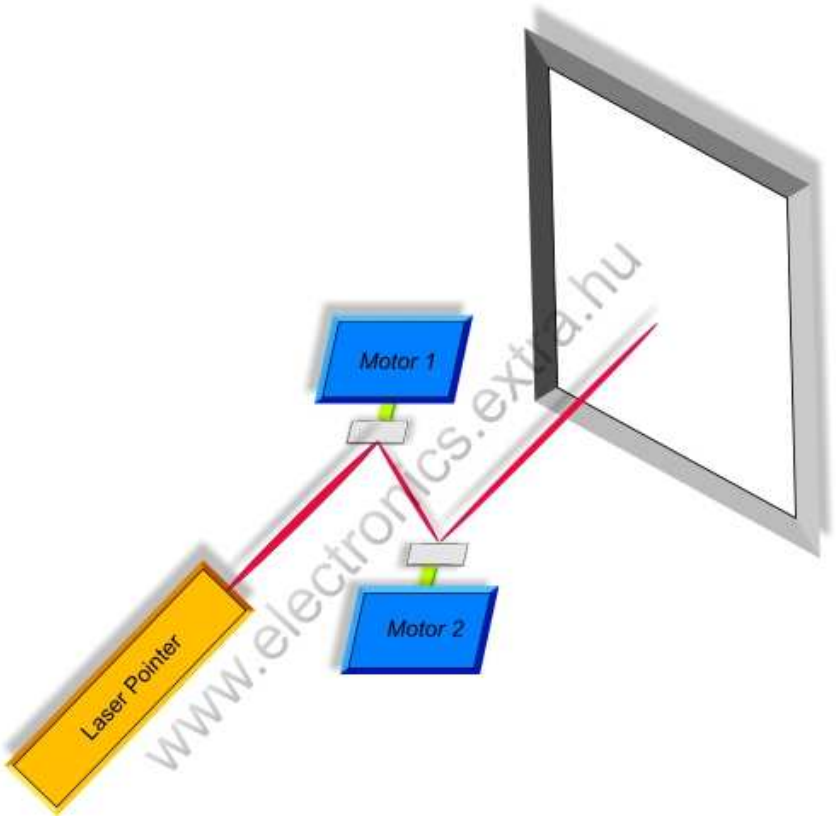


Fig. 2

Electronical

First, cut a laser pointer out of its case, or simple remove only the battery holder and solder 1 wire to the arc (-) and the other, without soldering, place between the case and the battery holder (+) (**Fig.3**). With some turns of electrical tape, placed on the push button, you can maintain the laser pointer, always ON.

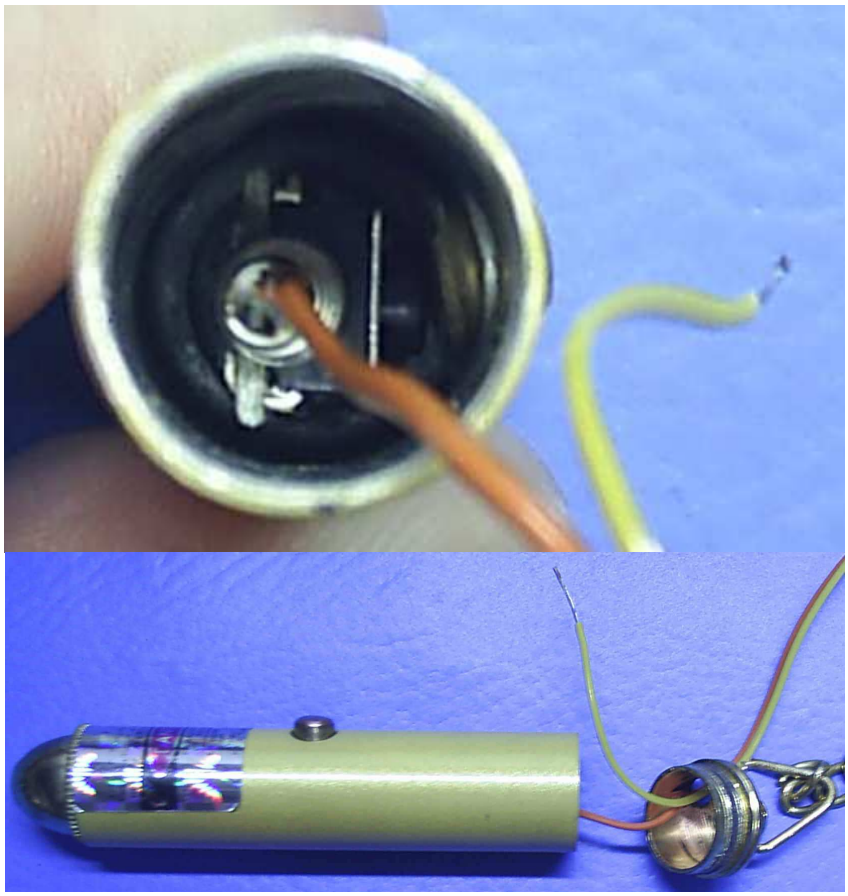


Fig.3

Build the electronic circuit presented in the **Fig.4**

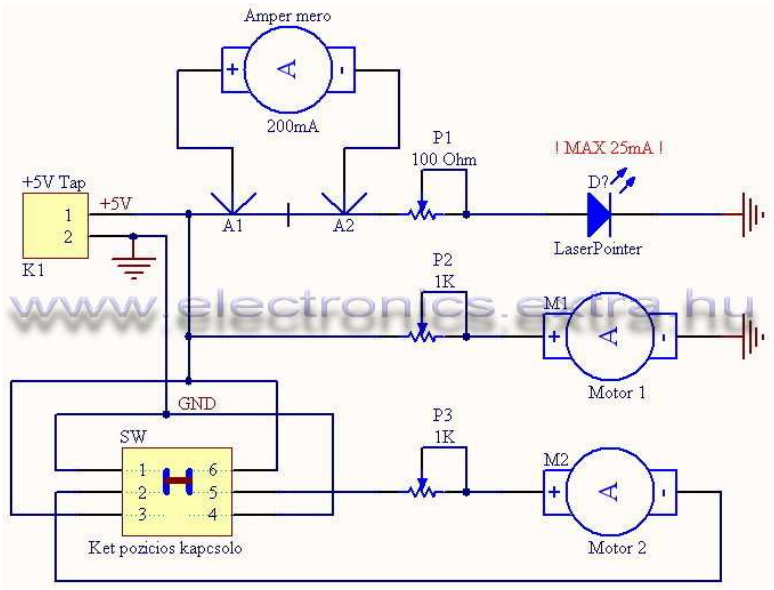


Fig.4

First, move trimmer and potentiometers slides to the max. value.
Remove the connection between A1 and A2 points.
Turn On the circuit.
Connect a mA meter (multimeter) and turn the P1 slide slowly, while the mA meter indicates a value between 15 – 20mA. Remove the mA meter from the circuit and reconnect the A1, A2 points.
Adjusting P2, P3 you can modify the motors speed individually, obtaining different images from the output.
Using the switch SW, you can change polarity of the motor M2, obtaining more images.

!!! Danger !!!
Laser Radiation
Do not direct them towards other people !!!
Never look directly into a laser beam !!!
Build and/or use at your own risk !!!