1 Description

Optical Jigsaw outreach demo

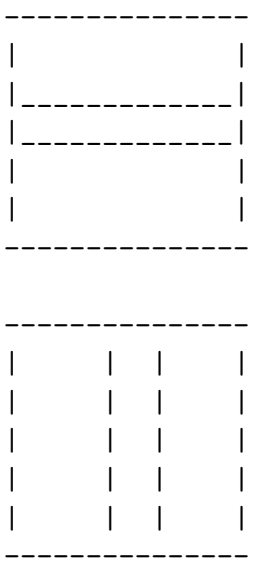
2 Improvements to be made

- Fix back reflection triggering a permanent loop using a microcontroller.
- Redesign the repeaters to work in all four directions on the square enabling 90 turns
- Reconfigurable directions
- Button to autotune background light level
- PWM magic
- Mains power supply
- Colour filters
- Change voltage regulator/supply
- Wireless support
- Pots for current control giving adjustable brightness/power consumption
- allpcb 10 100x100mm pcbs 2mm thickness $75.
- Perspex for 1000x1000mmx2mm £40
- Possible chip: PIC18F1230

In order to produce a DXF autocad schematic we will use FREECAD which is avaliable on the ubuntu repository.

We want to have around 15mm thickness in the perspex waveguides and they should fit on 150x150mm^2 blocks

Box outline with waveguides inside,



We want to be able to tile the squares together to create a maze. We are also including curved sections (not shown here).