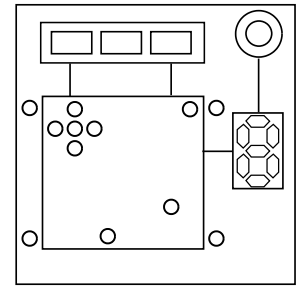


## On the Subject of RGB Mazes

*Now you too can experience getting lost three times simultaneously!*

This module consists of an 8x8 grid of LEDs and a seven segment display.



On this 8x8 grid are three mazes:

one with red walls, one with green, and one with blue.

Each of these mazes contains a key. All three of these keys are initially shown on the grid.

The seven segment display shows three numbers that correspond to each of the mazes, which also overlap and mix additively.

Pressing any of the LEDs will reveal the starting location, a white LED, somewhere within the red maze. The keys are then hidden but will not be moved from their original locations.

Press an adjacent grey LED to move. Attempting to move to a space where:

- there is a wall between the white and selected grey LEDs...
- a key belonging to a different maze lies...

will cause a strike.

Press the white LED to switch between mazes. This can always be done and will never result in a strike.

Once all three keys are collected, the seven segment display will change. Each of the three colour components give a coordinate of the location of the exit:

- One of the components is a number. This gives the row the exit lies in.
- One of the other components is a letter. This gives the column the exit lies in.
- The remaining component is a random pattern that is neither a number or a letter.

The exit lies in the maze that is the same colour as this component.

Note: B and D are shown in lowercase to disambiguate them from 8 and 0; the rest of the letters are uppercase.

In a similar fashion as the keys, the exit can only be used from the maze it lies in. A strike will be incurred if an exit is attempted from a different maze.

## Maze Layouts

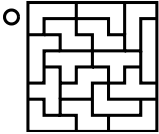
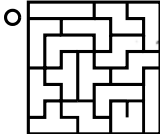
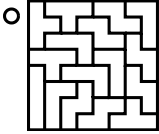
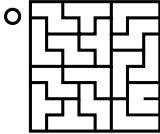
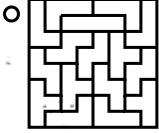
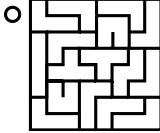
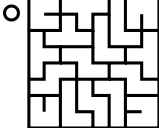
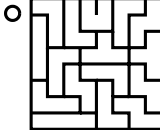
Each colour component of the seven segment display is a number corresponding to one of the mazes below.

Each of the mazes has an LED at one of its corners that is the same colour as the maze itself, identifying the orientation of that maze.

The mazes may have been flipped horizontally and/or vertically such that the LEDs are flipped onto the appropriate corners of the grid.

The colours of the LEDs mix additively if their respective mazes have the same orientation.

Each of the mazes below have their LEDs at the top left corner of the grid.

0	1
	
2	3
	
4	5
	
6	7
	
8	9
