# On the Subject of Canny Maze

*The thing that gets me about these modules is that the instructions are actually well-written, even though we only see images and text. We create the whole solution in our text-editing software, and it turns out correct.*

On this module will be an image of Mr. Incredible becoming canny alongside four arrows. These images (tiles) are numbered 1-7 in order of the table below, and are randomly distributed across a square grid (maze) with dimensions ranging from 5 to 8.
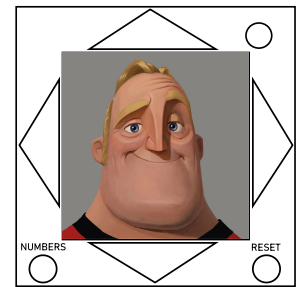
Clicking on the center of the module reveals the entire maze, and clicking again returns to the view of the current position. In the view of the entire maze, the current position is surrounded by a blue border and the goal by a red border. The module will automatically solve upon reaching the goal. Whichever tile is on the module at first is the type of maze present. The type of maze on the module will never change.

The button on the bottom left turns all of the images into numbers when viewing the entire maze to make communication easier. The button on the bottom right completely resets all progress, but does not regenerate the maze.

## YOUR MAZE IS:

| | | | | | |
|---|---|---|---|---|---|
| | SUM MAZE | | COMPARE MAZE | | TILES MAZE |
| | BINARY MAZE | | AVOID MAZE | | STRICT MAZE |
| | WALLS MAZE | | | | |

## Instructions

Sum Maze: Sum all orthogonally adjacent tiles, then modulo 7 and add 1. Whichever surrounding tile is closest or equal to this number is the tile to navigate to. Include the tiles that have already been traversed in the sum, but do not consider them when determining the closest to the result.

Compare Maze: Compare the sum of the tiles immediately to the left and right with that of the tiles immediately above and below. The defuser can only move in the directions of whichever pair is larger. In the case of them being equal, the defuser can move in any direction.

Tiles Maze: Take (the total number of tiles traversed multiplied by the current tile) modulo 7 and add 1. Whichever surrounding tile is closest or equal to this number is the tile to navigate to. Do not consider tiles that have already been traversed when determining the closest to the result. **Note that the total number of tiles traversed includes the starting tile, and begins at 1.**

Binary Maze: Take the binary representation of the current tile. Whichever tile can be reached by inverting any one bit is the tile to navigate to.

Avoid Maze: Cannot move up to tiles 1 or 2, cannot move right to tiles 3 or 4, cannot move down to tiles 5 or 6, cannot move left to tile 7.

Strict Maze: Can only move up or down if going from an odd tile to an even tile or vice versa, can only move right if moving to a higher tile, can only move left if moving to a lower tile.

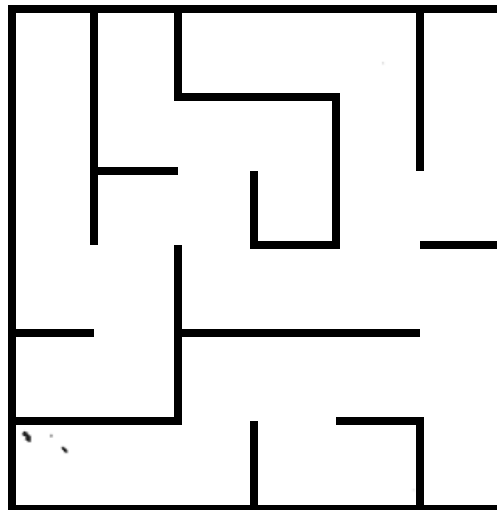Walls Maze: Must avoid walls (see below page).

Backtracking is always allowed. In the case of more than one tile meeting the necessary conditions, any applicable tile can be navigated to. This also applies while backtracking.
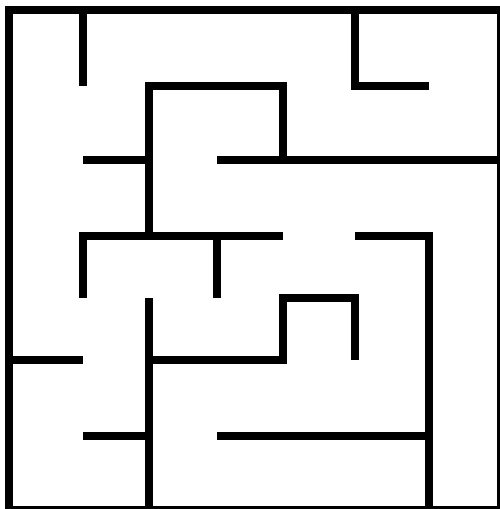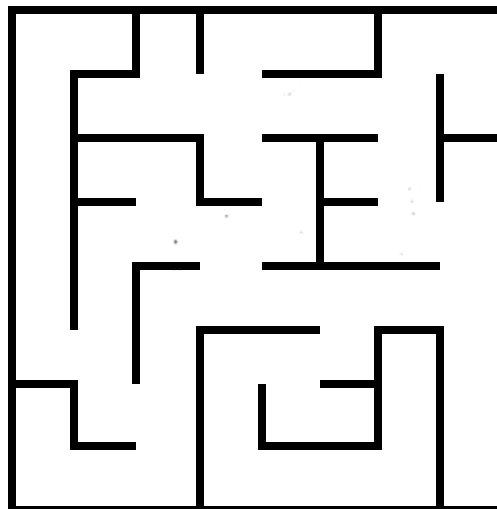
## Walls Maze Maps

5x5
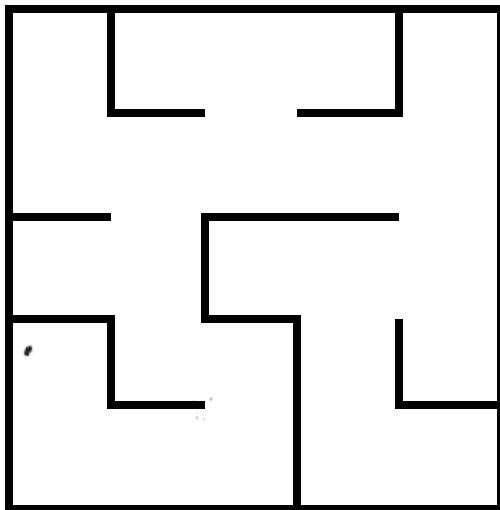
6x6



7x7

8x8



## Binary Maze Guide

1: 3, 5
2: 3, 6
3: 1, 2, 7
4: 5, 6
5: 1, 4, 7
6: 2, 4, 7
7: 3, 5, 6