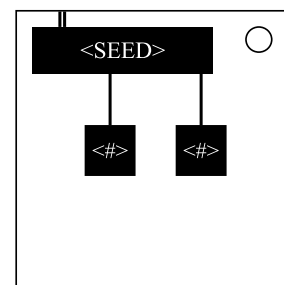


## On the Subject of Seeded Maze

*Wanna see me generate a maze? Wanna see me do it again?*

This module contains a large display with a seed on it and two smaller displays with a number from -9 to 9 on them.



The seed is used to generate a maze of connected cells. At the beginning there is only a cell at coordinate (0, 0). Start by getting the cells connected to (0, 0) using the first digit of the seed in the table below. Then locate the first connected cell in clockwise order from the top of cell (0, 0) and use the second digit of the seed to get its connected cells. This process continues for the remaining cells in the first generation (i.e. all connected cells adjacent to cell (0, 0)). Then the whole process is repeated starting with the oldest connected cell for that generation. The process stops immediately once you have run out of digits in the seed.

Your initial position in this maze is at (0, 0). To get the sequence of directions you must move in, take each character in the serial number (converting letters using A=1...Z=26) and modulo each character by 4. Each number (N) corresponds to which direction you must move in starting from up going clockwise N times. Move according to the number received from the first digit of the serial number, then the second, and so on looping around when necessary. The total number of times you must move is equal to  $2 * \text{the number of batteries} + 5$ . Note that when you move in a direction that does not have a connected cell nothing happens.

Get the coordinate of your location in the maze after performing all the moves and enter it onto the smaller displays. Clicking a small display will increase it by 1 and it will wrap around to -9 if it was at 9. Click the large display to submit your answer.

Submitting the wrong coordinate will result in a strike.

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 0<br> | 1<br> | 2<br> | 3<br> | 4<br> |
| 5<br> | 6<br> | 7<br> | 8<br> | 9<br> |