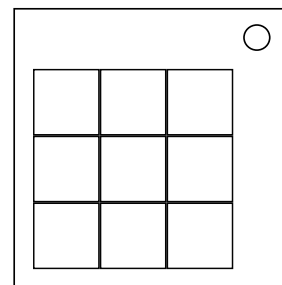


## On the Subject of Simon Shapes

*A pattern is a pattern is a pattern.*

- This module has 6 buttons colored red, green, blue, cyan, magenta and yellow. And 3 gray buttons. Forming a 3x3 grid.
- For each stage, there will be a flashing sequence of 2-5 colors. Using the positions of the flashes relative to the colors (indexing from 1), create a shape from Table B and input the row and column colors of the shape back into the module. The inputs should stack upon each stage.
- After 2-5 successful stages, the colors will stop flashing. The pieces of the previous stages will make a shape in Table B. Form that shape using the 3x3 grid to solve the module.
- **NOTE:** Shapes can wrap around the table in both Table A and B.



For each stage, determine a reference digit using edgework:

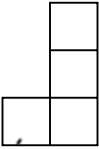
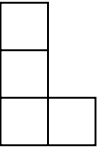
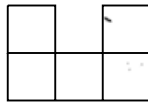
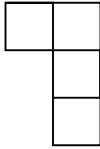
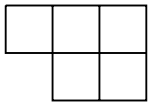
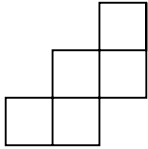
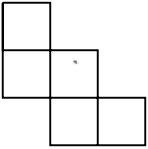
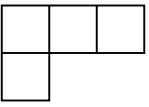
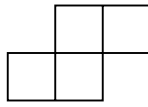
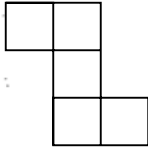

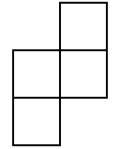
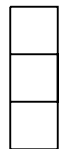
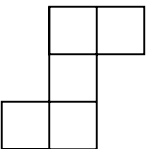
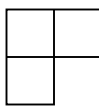
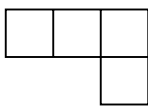
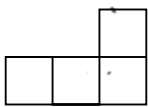
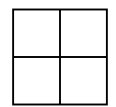
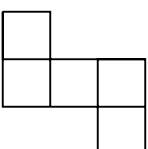
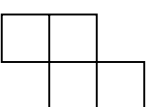
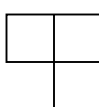
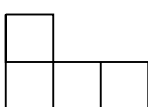
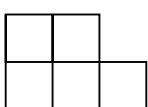
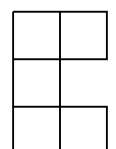
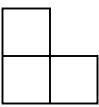
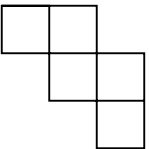

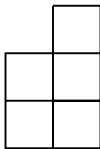

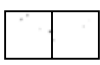
- Stage 1: Sum of the serial number digits  $\% 12$
- Stage 2: (Batteries + Ports)<sup>2</sup>  $\% 12$
- Stage 3 and onwards: Sum of the alphabetic positions of the first letter of each indicator  $\% 12$

Find the stage's first flash within the row/column of the reference digit. Move around the grid to adjacent cells(not diagonally) that match the position of each flash. This should result in a shape from Table B.

**Table A:**

	0	1	2	3	4	5
6	1	2	3	4	5	6
7	4	5	6	1	2	3
8	2	3	4	5	6	1
9	6	1	2	3	4	5
10	3	4	5	6	1	2
11	5	6	1	2	3	4

If the first digit of the serial number is even, input the column first, otherwise input the row first.

Table B	Red	Green	Blue	Yellow	Magenta	Cyan
Red						
Green						
Blue						
Yellow						
Magenta						
Cyan	