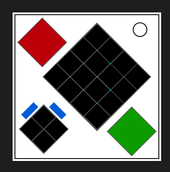
On the Subject of Uncolored Simon



Simon says GIVE ME MY COLORS BACK!!!

Uncolored Simon starts you off without any colors, did Simon lose them? Your task is to restore Simon to his vibrant self.

When the module activates, it reveals a 4×4 grid of diamonds in various grayscale tones. There are four distinct shades of gray, and your goal is to correctly color it in with your "Stamp" in the bottom left. Each of the four diamonds in the Stamp can be clicked to cycle through 8 possible colors. To determine the correct color for each diamond in the Stamp, refer to the color table below.

1. Determine the column by checking the gray tone distribution in one quadrant (N, E, S, or W).
2. Determine the row by finding which gray tone appears most frequently across the other three quadrants. If there's a tie, brighter tones are prioritized, except when your chosen quadrant has exactly two pairs of grays, in which case darker tones take priority.
3. The intersection of that row and column gives you the color for the stamp tile matching your chosen quadrant's position.
4. Repeat this for all four quadrants, submit once the stamp is fully colored.

		Your current quadrant			
		Gray tones all different	2 of the same gray tones / 2 pairs of gray tones	3 of the same gray tones	Grey tones are all the same
Shade of gray that appears most frequently in the other quadrants	Lightest gray	Cyan	Red	Brown	Purple
	Second lightest gray	Purple	Yellow	Magenta	Green
	Second darkest gray	Brown	Green	Cyan	Blue
	Darkest gray	Magenta	Blue	Red	Yellow

To begin coloring in your 4×4 grid, follow these steps:

- For each of the 4 stamp colors (starting from the top and going clockwise), look up its corresponding sequence of the digits 1-9 from the table below. You will end up with 1 to 4 different 9-digit sequences.
- To generate the stamping order, go through all your sequences simultaneously, one position at a time:
  - Build a new 9-digit sequence by selecting the smallest number among the current entries of the sequences, skipping any that have already been used.
  - If none of the numbers can be used, instead take the smallest unused number from 1-9. Repeat this process until your sequence contains each digit from 1 to 9 exactly once.
- The pips are numbered from top counterclockwise, with 9 being the center. After pressing a pip, rotate the stamp clockwise if the number was even, or counterclockwise if it was odd.

Color	Sequence
Blue	4, 9, 2, 7, 6, 1, 3, 5, 8
Brown	6, 3, 1, 9, 8, 2, 5, 4, 7
Cyan	2, 5, 7, 1, 9, 6, 8, 3, 4
Green	8, 7, 6, 3, 2, 4, 9, 1, 5
Magenta	7, 8, 3, 2, 5, 9, 4, 6, 1
Purple	3, 6, 9, 5, 4, 8, 1, 7, 2
Red	5, 2, 4, 6, 1, 3, 7, 8, 9
Yellow	1, 4, 5, 8, 3, 7, 2, 9, 6

If you want to start over, resetting restores the grid and the stamp's rotation.

Submit the correctly filled grid to proceed to the next stage.

Simon Says Phase

A sequence of 5 colors will flash, each located within one quadrant of the 4×4 grid. To respond correctly, you must transform this sequence using both position and color as follows:

For each flash:

- Record its inverse position within the quadrant.
- After all flashes, reverse the order of the colors.

This will give you 5 new position-color pairs.

For each pair:

- Go to the quadrant corresponding to the recorded position.
- Start at the top diamond of that quadrant.
- If the color is primary (Red, Blue, or Yellow), move clockwise.
- If the color is not primary, move counterclockwise.
- Press the first diamond that matches the color from the pair.
- If the color is not present in that quadrant, continue moving in the same direction into the next quadrant and repeat these steps.

Repeat this process for all 5 pairs. If all inputs are correct, the module will disarm. An incorrect input will result in a strike and the sequence replaying.