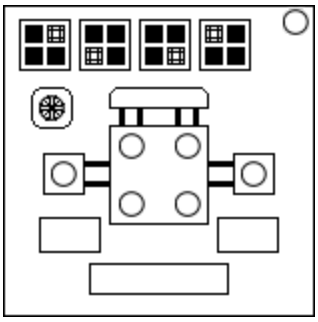
On the Subject of Rust.G.B.

1-2-4-1, no, 3-1-2-2...I'm lost



Using the methods and diagram on page 2, find and set the 4 center lights to the correct pattern, then press the long button on the bottom to disarm the module.

---Determine Solution Pattern---

First, turn the serial code into 6 numbers, converting letters into numbers starting at 1 (A -> 1, B -> 2, etc.). Then, modulo all 6 numbers by 2 until you have a 6-digit code of 1s and 0s (ODD -> 1 // EVEN -> 0) (EXAMPLE: A2G85J -> 101010)

Next, split the code into 2 smaller codes. The MAIN code uses the odd positions, the SECONDARY uses the even (EXAMPLE: 101010 -> M: 111 S: 000)

Both codes form an RGB value, adding Red, Green, and Blue respectively. Convert the color found in the module's cage into this same sequence.

Modify the MAIN and SECONDARY codes by adding the Red, Green, and Blue values from the caged value, converting 2s to 0s (XOR both codes with the caged code)

- (Example: if caged=011 and MAIN=110 -> Main=101)

Finally, locate the pattern (A 2x2 grid of letters) in the Venn Diagram using your <u>modified</u> main color. If the color's condition is false, use the pattern from your modified second color, regardless of the condition.

---Determine Sets---

The top 4 buttons are each assigned a unique set from the chart below. Each set will cycle 3 lights between one of the 3 primary colors in RGB order.

1	TL-BL-BR // TR	2	TL-TR-BR // BL	3	TL-TR-BL // BR	4	TR-BL-BR // TL
	X-/ X-X		X-X /-X		X-X X-/		/-X X-X

NOTE: **X** are toggled lights, / are unaffected

---Navigating to the solution---

- **START** - use the methods below to set all 4 LEDs to a solid color, aka your dominant color. You can use either set from the category
- **RGB SHIFT** - To shift all the colors in RGB order, click all 4 buttons ***once*** in any order
- **SWAPPING** - Entering a method twice swaps the non-dominant color with the unused color*
- **INVERT** - the long buttons above the submit button will invert 2 LEDs, the left inverting the major diagonal, the right inverting the minor. The solution methods do not change and the button can be pressed whenever

SOLUTION METHODS

2 -> 3 ROWS 1 -> 4	1 -> 3 COLUMN 2 -> 4	1 -> 2 DIAG. 3 -> 4
D-D N-N N-N D-D	D-N D-N N-D N-D	D-N N-D N-D D-N

--NOTES--	---KEY---
[N] is the next color after [D] in RGB order. White Pairs only use 1 method.	D - Dominant // N - Non-dominant U - Unused 3rd primary // W -White # -> # - SET A -> SET B

WHITE PAIRS		ROWS		COLUMNS		DIAGONALS	
To set [N] colors to white: - start with the [Start] method - push ***one*** of the remaining sets <u>twice</u>**	Start	2 -> 3	1 -> 4	1 -> 3	2 -> 4	1 -> 2	3 -> 4
	Lower Set	U-D W-W	W-W D-U	U-W D-W	W-D W-U	U-W W-D	W-D U-W
	Higher Set	D-U W-W	W-W U-D	D-W U-W	W-U W-D	D-W W-U	W-U D-W

*Also applies to White Pairs

**If [*] was used for [START], press <u>once</u>

VENN DIAGRAM