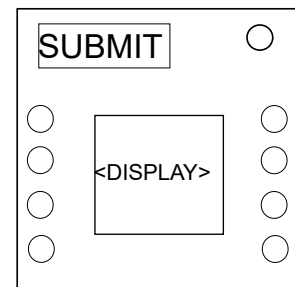# On the Subject of Color Math

So many colors!

- This module contains 2 rows of LEDs, left (represents the base number) and right (represents adder/subtractor/multiplier/divider and/or answer).
- Numbers in this module are ranged from 0-9999 inclusive. LEDs are read from the top (Most Significant Digit) to bottom (Least Significant Digit).
- Use Table 1 to convert left side LEDs into the base number.
- The display at the middle of this module shows the action that needs to be performed: [A]dd / [S]ubtract / [M]ultiply / [D]ivide.
- If the text in the display is GREEN, use Table 2 to convert right side LEDs into the adder/subtractor/multiplier/divider.
- If the text in the display is RED, ignore right side LEDS and then use Table 3 to determine the adder/subtractor/multiplier/divider.
- Perform the action required and use table 4 to convert the answer into colors, then input it on right side LEDs. Push SUBMIT to check.
- Colorblind mode available. Check the last page for more info.

Table 1: Left side LEDs to numbers conversion table

LED No.	Blue	Green	Purple	Yellow	White	Magenta	Red	Orange	Gray	Black
1	6	1	2	4	9	0	8	5	3	7
2	8	1	9	4	3	6	0	5	7	2
3	4	1	9	7	0	2	5	3	8	6
4	6	8	7	5	4	9	1	3	0	2

Table 2: Right side LEDs to numbers conversion table

LED No.	Blue	Green	Purple	Yellow	White	Magenta	Red	Orange	Gray	Black
1	0	6	5	4	3	7	9	8	1	2
2	2	9	8	0	5	3	4	7	1	6
3	5	0	6	4	2	7	9	3	8	1
4	5	4	2	9	8	6	7	1	3	0

Table 3: Finding ASMD in case of red display

Digit No.	0-1 Batteries	2-3 Batteries	4-5 Batteries	6+ Batteries
1 (MSD)	First digit in serial number	0	Amount of vowels in serial number	DVI-D port counts
2	Amount of unlit indicators	PS/2 port counts	Amount of battery holders	5
3	9	Amount of letters in serial number	Serial port counts	Amount of consonants in serial number
4 (LSD)	RJ-45 port counts	Last digit in serial number	4	Amount of lit indicators

Table 4: Answer to colors conversion table

LED No.	0	1	2	3	4
1	Gray	Green	Orange	White	Purple
2	Blue	Green	Black	Purple	Magenta
3	Magenta	Yellow	Blue	Gray	Red
4	Gray	Blue	Purple	Red	Yellow

LED No.	5	6	7	8	9
1	Blue	Magenta	Black	Yellow	Red
2	Red	Gray	Yellow	Orange	White
3	Black	Green	Purple	Orange	White
4	Magenta	Black	Orange	Green	White

- Note: On the subtraction, if the answer is negative, answer as positive.
- Note: On the division, if the answer contains remainder, ignore the remainder.
- Note: If the answer exceeded 9999, please divide the answer with 10000 and answer with the remainder. (Or in short, modulo it with 10000.)

Colorblind mode

- The colorblind mode could be enabled in the module settings file.
- A letter represents a color will be displayed alongside each LED as follows:

Color	Letter
Blue	B
Green	G
Purple	P
Yellow	Y
White	W
Magenta	M
Red	R
Orange	O
Gray	A
Black	K