

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.

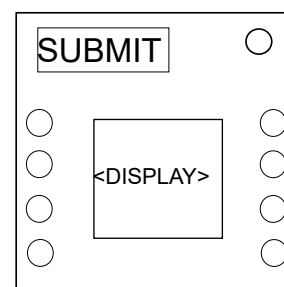


Table 1: Left side LEDs to numbers conversion table

| 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 |