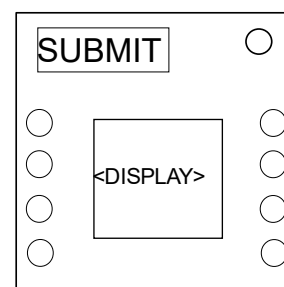


## On the Subject of Color Math

*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.



**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.)