

On the Subject of The Orange Button

This is a button. It is orange.

The module contains an orange button with a digit from 0-8 written on it and a screen consisting of letters from A-I.

Take the serial number characters, and split them up into three pairs of two:

- The sixth and fifth serial number characters as the first pair.
- The fourth and third serial number characters as the second pair.
- The second and first serial number characters as the third pair.

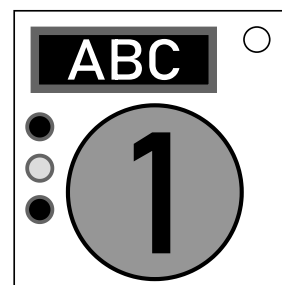
Convert any letters into their base-36 value. (A=10, B=11, ..., Z=35) Then, take each character serial number, and repeatedly subtract 9 until your number is between 0 and 8.

The first value in each pair represents which column in the table below you have to use. The second value represents the row. Find the letter found at the intersection.

Then, with the number written on the button, move these many squares down from the discovered intersection, wrapping around to the beginning of the row if necessary. The three letters found at each new square is what needs to be submitted.

To change the letter in the display, tap the button when the letter's color is cyan. This will shift it forward n times, where n is the position of the green LED from top to bottom.

To submit your answer, hold the button over any timer tick.



	0	1	2	3	4	5	6	7	8
0	I	E	F	G	C	H	B	A	D
1	F	H	G	A	E	B	I	D	C
2	E	A	I	D	B	C	G	F	H
3	C	G	H	B	F	D	A	E	I
4	G	F	B	C	D	E	H	I	A
5	A	C	E	F	H	I	D	G	B
6	H	I	D	E	G	A	C	B	F
7	D	B	A	H	I	F	E	C	G
8	B	D	C	I	A	G	F	H	E