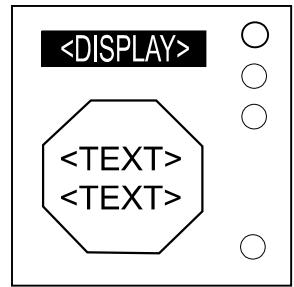


## On the Subject of The Bamboozling Button

"Wait, was that the letter Yankee or the word Y?"

-You, probably

This module consists of a coloured button with two lines of text written on it and a screen that displays a message that is broken into five parts.



Of these display texts:

- The second is always the word "THEN".
- The third ends with a colon.
- The fourth and fifth are coloured.

The cells in the table below are denoted by ( i , j ) where:

- i is the index of the row labelled with the relevant text that appears on the module.
  - Starting with "A LETTER" = 0:
    - D1 to D5 refer to the rows labelled with each of the five parts of the displayed message.
    - B1 and B2 refer to the rows labelled with the upper and lower lines of text on the button.
- j is the index of the column labelled with the relevant colours that appear on the module.
  - Starting with "WHITE" = 0:
    - [D4] and [D5] refer to the columns labelled with the colours of the fourth and fifth parts of the displayed message.
    - [B] refers to the column labelled with the colour of the button.

These display texts, their colours, the text on the button, and the colour of the button will all be required to obtain the two times when the button should be pressed for each stage.

### Section 1: Special Cases

- If the upper line of text on the button matches any of the five parts of the displayed message, double-tap the button when the last digit of the timer is  
(D4 , [D4]) mod 10.
- Otherwise, if the lower line of text on the button matches any of the five parts of the displayed message, double-tap the button when the last digit of the timer is  
(D5 , [D5]) mod 10.
- Otherwise, continue to the next section.

## Section 2: Default Case

Find the following values in table:

1.  $V_1 = (D4 - D1, [B])$
2.  $V_2 = (D5 - D3, 14 - [B])$
3.  $V_3 = (B1, [D4])$
4.  $V_4 = (B2, [D5])$

## Section 3: Punctuation

Use the values you have obtained to determine the two times the button should be pressed.

If the first display ends with a comma, then  $X = V_3 + V_4$  and  $Y = V_1 + V_2$ .

Otherwise,  $X = V_1 + V_2$  and  $Y = V_3 + V_4$ .

If the whole message is appended by-

- single inverted commas, then press the button when the sum of the two last digits is  $(X \bmod 9) + 3$ , and again when it is  $(Y \bmod 9) + 3$ .
- double inverted commas, then press the button when the sum of the two last digits is  $(2X \bmod 9) + 3$ , and again when it is  $(2Y \bmod 9) + 3$ .
- no inverted commas, then press the button when the last digit is  $X \bmod 10$ , and again when it is  $Y \bmod 10$ .

## Submission Info

Once the button has been pressed, the screen will turn off and will not turn back on until the button is pressed again.

If both button presses are timed correctly, the module will advance to the next stage, indicated by a light on the side turning green.

If either button press is timed incorrectly, a strike will be issued.

If the module issues two strikes in a row, it will reset back to stage 1.

	WHITE	RED	ORANGE	YELLOW	LIME	GREEN	JADE	GREY	CYAN	AZURE	BLUE	VIOLET	MAGENTA	ROSE	BLACK
A LETTER	-10	8	6	10	6	-5	6	3	7	3	-4	-9	0	-1	0
A WORD	8	5	-2	-4	-5	8	7	10	8	7	-8	-8	2	1	-6
THE LETTER	-8	2	-6	-8	-4	5	-1	4	4	-5	8	2	7	-4	6
THE WORD	3	9	8	-1	-3	-9	0	10	6	-2	7	3	3	-2	0
1 LETTER	5	-3	7	9	4	-6	10	6	-4	-6	-5	-2	5	-7	3
1 WORD	-10	3	9	6	-9	0	9	1	-9	9	0	-4	-4	0	9
ONE LETTER	-9	-9	4	10	-5	-9	1	8	0	7	-3	8	3	1	5
ONE WORD	7	-5	9	0	-9	0	-8	6	-7	-4	-9	-6	9	2	1
B	3	2	-5	1	9	10	3	-4	7	-5	-10	8	8	9	10
C	-5	8	-1	-1	-1	-8	2	-6	-9	10	-4	2	6	-2	-9
D	1	10	-3	-10	-10	10	9	5	7	3	6	-5	2	4	-6
E	-2	3	8	-9	-2	-9	7	-5	10	8	9	10	-2	10	2
G	6	-4	10	-8	1	7	6	9	5	-1	-7	2	-9	-1	-4
K	5	2	-9	3	-5	9	1	0	-8	-4	10	-4	2	5	3
N	1	5	3	8	-2	7	-6	2	-2	6	-2	-5	-4	-7	-2
P	-10	2	7	9	-4	-10	-10	-9	5	4	-4	4	7	-6	1
Q	7	9	3	-3	1	-6	1	8	7	2	-10	-5	9	-5	6
T	-6	-10	-2	2	6	6	-2	8	6	5	5	-6	-8	3	-10
V	-9	-9	-10	3	7	2	-4	4	-1	7	3	9	-3	7	-4
W	-7	10	-8	2	-4	-2	1	-4	5	10	5	-3	-8	-5	9
Y	-10	-5	9	10	2	-4	6	-2	-1	3	10	-4	2	7	-7
BRAVO	-7	-10	2	5	8	7	-6	-6	-10	-8	-2	6	1	6	10
CHARLIE	-3	7	1	-5	-5	5	-1	-7	2	7	2	-9	-6	-6	-8
DELTA	4	-8	0	-10	5	5	2	-8	-6	-8	10	2	-7	4	-3
ECHO	-8	8	5	9	9	6	9	5	-3	7	-9	3	8	-9	1
GOLF	-1	10	4	-5	-8	3	8	2	-9	-3	-4	1	-3	1	8
KILO	-5	-4	2	0	-9	-2	-4	4	5	5	8	-7	-1	-7	10
NOVEMBER	4	10	-7	1	9	3	-6	-2	1	0	-4	9	9	-5	4
PAPA	7	-2	9	-9	4	0	-4	-8	-2	-6	-5	7	0	7	-8
QUEBEC	-8	-6	-4	3	-4	6	5	9	9	2	-10	8	1	6	7
TANGO	-1	-7	-7	-8	3	-1	10	-9	-3	-4	7	9	4	-3	-9
VICTOR	6	0	1	8	0	7	8	7	9	-10	-6	0	1	-8	4
WHISKEY	-7	9	5	1	9	10	10	4	0	8	6	-8	5	0	-9
YANKEE	10	10	1	2	-2	9	-2	8	8	9	8	7	3	-5	-1
COLOUR	7	1	6	-9	-8	3	10	-9	7	8	9	0	-1	10	4
RED	-4	0	-2	-3	7	-2	5	3	-8	5	1	-5	-3	-9	3
ORANGE	-3	-10	7	3	5	2	6	-4	-2	-6	-6	0	4	-7	-1
YELLOW	7	8	-6	6	-6	10	-8	-5	1	-4	1	-2	3	1	-2
LIME	-3	2	-7	7	-1	6	9	2	7	2	4	3	-10	6	7
GREEN	-8	-5	10	-4	-5	-5	-1	6	-8	6	0	4	10	2	-9
JADE	-6	-7	9	-6	-1	-7	-10	-3	-6	7	-1	2	7	8	-1
CYAN	6	-8	4	9	-8	-1	3	1	9	9	-3	-4	3	-4	-7
AZURE	0	-4	-9	-9	5	-8	10	10	0	0	-7	-1	4	5	-9
BLUE	4	6	3	-3	8	-5	0	8	-7	8	-5	-8	-4	2	-10
VIOLET	1	3	-7	-5	-4	6	-6	-4	4	6	-1	3	2	-4	-6
MAGENTA	4	-5	-3	3	-7	9	-8	-10	2	-5	-7	2	8	-2	-2
ROSE	-6	-2	6	10	-10	7	-3	-8	-4	7	7	4	-8	-7	1
IN RED	1	-10	3	-9	5	-7	6	-3	9	1	-4	8	1	-8	-9
IN YELLOW	7	-8	-2	-3	-2	-1	-9	7	2	8	5	-8	-6	-1	4
IN GREEN	-5	6	-10	5	6	6	-4	8	-6	-4	5	-9	1	-4	3
IN CYAN	8	2	8	8	-5	-2	-2	-7	4	8	3	5	3	-2	-6
IN BLUE	9	6	0	-7	-3	9	-8	-6	-1	10	7	-3	-8	-10	-9
IN MAGENTA	-8	0	-9	1	-4	7	9	3	8	-1	2	8	6	3	4
QUOTE	-9	-8	9	-4	-2	5	-6	10	0	-8	9	-6	2	7	10
END QUOTE	7	0	-6	9	6	-1	10	3	6	6	-7	-3	-5	-9	2

## Appendix: Button and Display Text Colours

