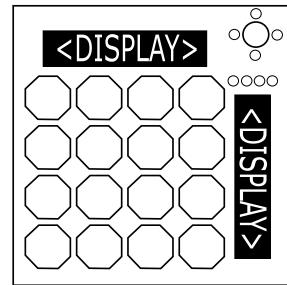


## On the Subject of Bamboozling Button Grid

*Pressing buttons are fun.. no?*

This module consists of 16 coloured buttons and two screens that each display four coloured messages.



Each button cycles through 5 colours.

Obtain an initial value from each message and use the operation associated with the displayed colours to compute the final values of each message.

Each final text value has a corresponding condition.

Press the four buttons that satisfy the conditions given by **both** messages in the order they were displayed.

If this is done correctly, all four LEDs above the second screen will turn green, and the module will advance to its next stage.

Otherwise, at least one LED will turn red. Red LEDs correspond to which of the four inputs were incorrect.

Each button is only pressed once to solve the module, pressing a button that was already been pressed will immediately incur a strike and reset the current stage.

Making two errors on the same stage will reset the current stage and a strike will be incurred. Strike on pressing duplicate buttons will not count as one error.

Each message that can appear on the screen contains a letter of the alphabet, refer to Appendix I for the NATO phonetic alphabet letters.

Refer to the lookup table to determine the conditions, using the displayed alphabet and colour operation.

To determine which colour is used for the colour operation, refer to the rules below the lookup table.

If the cell is of the form R#/Y#/G#/B#, the button must be the given colour at the given step of cycle; if the cell is of the form ##, the button must be the same colour at the two given steps of the cycle.

If the second condition contradicts the first, press the button which have the colour given by the first condition on #th step and #+1 th step.

(e.g. If conditions are Y4 R4, press the button with Y4 Y5)

[Go to Case 1](#) // [Case 2](#) // [Case 3](#)

### Case 1: The letter is not spelt

	WHITE	RED	ORANGE	YELLOW	LIME	GREEN	JADE	GREY	CYAN	AZURE	BLUE	VIOLET	MAGENTA	ROSE
A	G2	G2	R1	R1	Y3	B2	G2	G1	B2	B5	B5	Y2	Y3	G5
B	R1	R1	G1	G1	G5	Y3	R1	R4	R2	Y3	24	23	R3	Y5
C	B5	B5	Y3	Y3	23	25	B5	B3	R4	Y2	13	G4	B4	Y3
D	G1	G1	R5	R5	Y5	R3	G1	Y2	B1	G5	R5	Y3	Y5	14
E	24	24	G1	G1	B3	G2	24	23	B3	45	B2	G4	R5	Y3
F	Y3	Y3	G5	G5	Y3	B4	Y3	Y3	B1	23	B3	Y4	R2	24
G	13	13	R4	R4	Y1	34	13	G1	B5	34	45	B4	15	B5
H	R5	R5	Y1	Y1	14	Y5	R5	45	R2	Y5	R2	24	B5	R3
I	Y2	Y2	23	23	Y4	G4	Y2	R5	B2	G4	B4	B3	G1	R5
J	G1	R4	B2	R4	45	R5	34	G2	G1	G5	34	23	45	G1
K	B2	34	B3	R2	B2	Y2	R2	B2	34	45	G3	B2	Y1	R2
L	G5	R2	45	Y5	R2	R2	G3	34	G3	23	G1	R4	13	25
M	B3	G3	R2	B4	G3	R4	Y5	15	23	34	G4	12	G5	B5
N	R4	Y5	B4	B2	12	15	G1	B4	Y4	Y5	12	R1	24	G3
O	45	G1	34	B3	Y2	G3	B4	R5	Y5	G4	15	Y3	G1	G1
P	Y1	B4	G3	G3	B4	B5	G4	R1	13	B3	R4	R2	R5	G1
Q	R2	G4	G1	25	Y3	Y3	B2	Y4	R4	R4	Y2	Y5	B1	B4
R	23	B2	G4	Y3	G1	G1	12	B3	Y3	Y3	G3	G5	35	Y3
S	B4	12	12	R1	G2	B3	B3	G4	Y2	B1	B1	Y3	G5	23
T	R4	Y2	R2	Y2	B3	45	Y1	R1	R4	Y5	B4	Y3	Y3	R4
U	34	B4	Y5	Y1	B4	R5	23	G5	15	G4	23	12	G3	G3
V	R2	Y1	B4	B1	R2	Y1	B1	R2	Y1	B3	G4	R2	R2	B1
W	G3	23	B2	B5	B2	B5	G4	G3	G1	R4	Y3	15	Y4	R2
X	Y5	B1	B3	14	25	13	B5	Y1	35	Y3	Y5	Y2	12	R5
Y	G1	G4	G3	23	Y2	R4	Y3	12	R4	B1	R5	Y5	23	45
Z	B4	B5	25	12	B5	G5	14	G5	15	Y1	G1	G3	14	Y5
	WHITE	RED	ORANGE	YELLOW	LIME	GREEN	JADE	GREY	CYAN	AZURE	BLUE	VIOLET	MAGENTA	ROSE

If the message contains...

- "THE LETTER", use the colour of the **next\*** message on the **same** screen.
- "THE WORD", use the colour of the **current** message on the **other** screen.
- "MISSPELT", use the colour of the **next\*** message on the **other** screen.
- only the letter used to obtain the initial value, use the colour it is written in.

\*If the current displayed step is 4, the next message is step 1.

[Go to Case 1](#) // [Case 2](#) // [Case 3](#)

**Case 2: The letter is spelt correctly**

	WHITE	RED	ORANGE	YELLOW	LIME	GREEN	JADE	GREY	CYAN	AZURE	BLUE	VIOLET	MAGENTA	ROSE
A	G3	G2	Y3	G5	R1	B4	G1	R2	I3	R1	R4	I4	B4	R4
B	R1	R5	Y5	I3	B4	G5	Y4	Y3	23	Y3	B5	Y1	Y5	B4
C	B1	I4	R5	Y1	I4	R1	24	34	I2	B4	R5	R4	R2	R1
D	Y2	45	B1	45	Y3	Y3	B5	G1	Y2	I4	B3	24	R4	Y2
E	B4	B3	B5	G1	R2	G2	G3	R4	R5	R5	Y3	Y5	23	I2
F	Y1	G1	I4	B5	I2	G3	15	Y5	G5	Y4	G3	G3	Y1	35
G	23	Y3	23	I5	I4	R1	R4	25	R2	R1	R4	R5	R4	I3
H	B1	B5	I2	R2	B1	R2	R2	B1	B5	Y3	Y2	B1	G5	R2
I	G4	G3	Y4	R5	23	B3	Y2	Y4	G2	B4	G4	G1	G1	Y4
J	B5	15	R2	Y5	R2	Y4	R5	35	Y3	B1	34	G5	R5	G5
K	Y3	R4	G3	B4	G5	G1	G4	G5	R2	I4	G2	Y4	Y3	Y5
L	I4	R2	Y3	R3	R5	I2	Y5	B5	B2	24	25	45	G1	Y3
M	Y5	Y2	G5	Y3	G5	R5	34	B4	B1	R4	B2	Y2	R1	I4
N	23	Y4	B3	Y4	R4	23	24	24	23	Y3	G2	R5	Y4	23
O	R5	G2	R1	R1	Y4	Y5	Y3	45	R1	B4	B5	Y3	R1	G5
P	I2	R1	G2	G1	G2	14	I3	G1	24	B1	24	I3	G1	G5
Q	G1	B5	R1	Y3	B4	Y3	R5	Y2	Y3	14	I3	14	Y3	I5
R	Y4	G1	B4	R5	G2	B5	Y2	G4	B4	24	Y2	G5	R5	Y3
S	B3	24	Y5	G1	B3	G4	G1	B3	24	R4	B2	B3	G1	G1
T	R2	Y3	G2	G5	R1	B1	B2	Y5	Y1	Y1	B3	35	G5	R2
U	R1	I3	I4	R4	G2	23	G5	R4	G4	B3	45	R2	R4	25
V	G3	R5	Y4	Y1	R2	Y1	B3	G3	R1	B5	R2	G1	Y1	B5
W	G2	Y2	R2	I3	R5	B4	R4	G2	Y5	R4	B4	G4	23	G3
X	Y3	R4	B1	R4	R5	Y2	B4	Y3	Y3	24	34	R5	R4	Y3
Y	R1	34	R5	R2	I5	B1	G4	Y1	Y4	R4	G3	G2	R2	24
Z	G5	R2	G1	Y5	G1	R1	B2	B4	G1	Y1	G1	B4	Y5	B5
	WHITE	RED	ORANGE	YELLOW	LIME	GREEN	JADE	GREY	CYAN	AZURE	BLUE	VIOLET	MAGENTA	ROSE

If the message contains...

- "THE LETTER", use the colour of the **next\*** message on the **same** screen.
- "THE WORD", use the colour of the **current** message on the **other** screen.
- "MISSPELT", use the colour of the **next\*** message on the **other** screen.
- only the letter used to obtain the initial value, use the colour it is written in.

\*If the current displayed step is 4, the next message is step 1.

[Go to Case 1](#) // [Case 2](#) // [Case 3](#)

### Case 3: The letter is spelt incorrectly

	WHITE	RED	ORANGE	YELLOW	LIME	GREEN	JADE	GREY	CYAN	AZURE	BLUE	VIOLET	MAGENTA	ROSE
A	G5	B1	G3	14	Y2	B4	R5	Y3	R4	R3	Y5	Y3	14	23
B	R4	G4	R4	23	G3	G1	12	R1	G1	B2	R5	G4	23	B3
C	13	B5	Y2	12	B3	Y5	G1	G2	Y3	R1	G1	B5	12	Y1
D	B5	Y3	G4	Y4	B5	G3	Y4	B5	Y3	24	B3	B5	Y4	Y4
E	Y1	14	34	R2	Y3	R2	B3	R4	G3	R5	R1	15	R2	B1
F	R5	Y5	G2	G3	Y2	34	R2	25	14	B2	G2	G2	G3	Y1
G	45	Y3	R2	Y3	R4	R4	R5	R5	45	R3	R1	B1	Y3	45
H	B3	R1	R5	G5	Y1	B4	14	23	G4	B2	B4	G3	G5	Y5
I	G1	G5	Y5	35	G5	23	G1	B2	R1	R1	Y5	B3	35	G1
J	Y3	B4	B4	B1	R5	R2	Y4	R1	B3	24	G2	G3	B1	Y1
K	B5	35	R3	R5	G1	Y1	24	14	Y5	R5	14	Y1	R5	B2
L	G3	Y5	Y3	G1	Y4	45	R2	G3	Y2	B2	Y4	Y2	G1	Y2
M	15	B1	Y4	24	R3	R4	G5	R5	B5	R4	R2	R1	24	12
N	R4	G2	R1	G5	Y5	B3	R4	Y1	R1	R2	R4	G2	G5	35
O	R2	R5	G1	13	R2	G5	13	R2	R5	R4	B5	R2	13	13
P	Y2	14	Y3	Y1	B4	B2	B5	Y3	R5	G3	R5	25	Y1	R2
Q	R5	45	B2	45	Y2	G1	Y2	Y2	R5	R5	B3	G5	45	R5
R	G4	B3	G2	G1	15	Y2	R5	B4	G2	B2	Y3	B3	G1	R1
S	Y5	G1	B5	B5	G4	R5	G4	12	G5	R4	G3	14	B5	R4
T	34	Y5	24	15	G3	13	Y5	B1	G3	R2	R4	B4	15	B4
U	B4	B5	13	R2	B4	Y3	34	Y5	25	R4	Y2	25	R2	R1
V	G2	G3	Y2	R5	45	24	B4	G2	G4	G3	G4	R5	23	
W	R3	15	B2	Y5	B2	G1	G2	14	R2	B4	34	R4	Y5	G5
X	25	R4	B3	B4	13	B5	R3	R5	G2	12	G2	B3	B4	G5
Y	Y3	R2	45	R3	B5	R1	25	Y2	Y1	G3	25	Y3	R3	15
Z	B2	Y2	R2	Y3	B2	G2	Y3	B2	Y2	Y2	B2	B2	Y3	Y3
	WHITE	RED	ORANGE	YELLOW	LIME	GREEN	JADE	GREY	CYAN	AZURE	BLUE	VIOLET	MAGENTA	ROSE

If the message contains...

- "THE LETTER", use the colour of the **next\*** message on the **same** screen.
- "THE WORD", use the colour of the **current** message on the **other** screen.
- "MISSPELT", use the colour of the **next\*** message on the **other** screen.
- only the letter used to obtain the initial value, use the colour it is written in.

\*If the current displayed step is 4, the next message is step 1.

**Appendix I: NATO Phonetic Alphabet Letters:**

Let.	Correct Spelling	Incorrect Spellings
A	ALPHA	ALFHA, ALPA, ALEPH, ALPHER, AELLFHAAH
B	BRAVO	BRAVOH, BRAVOE, BRAHVO, BRUHVO, BERRARVO
C	CHARLIE	CHARLEE, CHARLY, CHAALIE, SHARLIE, TCHAALEY
D	DELTA	DELLTA, DELTER, TELTA, OELTA, DERLEDEH
E	ECHO	EKO, ECOH, ECCO, EGHO, EQUEAUX
F	FOXTROT	FOKSTROT, FOXCHROT, FOXTROY, POXTROT, PHAWXTRT
G	GOLF	GOLPH, GOLLF, COLF, EOLF, GAULTH
H	HOTEL	HOATEL, HOTELL, OHTEL, HOTLE, HOUGHTEL
I	INDIA	INDYA, INDEA, INDIR, NDIA, YNNDEYER
J	JULIET	JOOLIET, JULYET, GULIET, JULLIET, DGEULIRT
K	KILO	KEYLO, KEELO, CHILO, QUILO, QUEELOWE
L	LIMA	LEEMA, LEYMA, LEMA, LIA, LEIGHMUR
M	MIKE	MYKE, MAIK, MIC, MIXE, MISQUE
N	NOVEMBER	NOBEMVER, NOVEBMR, NOVEMBAR, NOVENBER, NOUGHVMB
O	OSCAR	OSCAH, OZCAR, OSKAR, OSSCAR, AUSQUE
P	PAPA	PAPPA, PAPHA, PAHPAH, FAFA, PARHGPEH
Q	QUEBEC	QEUBEC, QUEBECK, CUEBEC, QUEBEQ, KWUBBECH
R	ROMEO	ROMIO, REOMO, ROMYO, RHOMEQ, ROAMEEOH
S	SIERRA	SCIERA, SIARRA, SEERRA, SYERRA, CYERHA
T	TANGO	TANKO, TONGO, DANGO, TNGO, TAENGKOW
U	UNIFORM	YUNIFORM, UNIPHORM, UNUFORM, UNIFROM, EUNIFAWM
V	VICTOR	VICKTOR, VICTAH, VITCOR, VICTUR, VYCHTOUR
W	WHISKEY	WISKEY, WHISKEE, WHISCEY, VVHISKEY, UISSQUAY
X	XRAY	EKSRAY, XRAE, XREI, XARRAY, ECHSREIH
Y	YANKEE	YANKIE, YANGKEE, YANKY, IANKEE, EANGQUI
Z	ZULU	ZOOLU, ZULOO, ZULLU, ZUWU, ZOUGHLEW