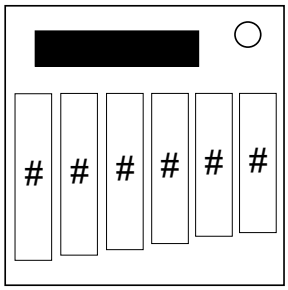
On the Subject of Recorded Keys



No. This is not Recordered Keys. This is a glockenspiel.

This module consists of 6 coloured keys, each of which is labelled with a coloured number.

These keys play notes of differing pitches when pressed.

The possible colours for both the keys and the numbers labelling them are: (R)ed, (G)reen, (B)lue, (C)yan, (M)agenta, and (Y)ellow.

Any of the numbers 1 - 6 may appear on each of the keys.

The notes played by each key are labelled 1 - 6, from the lowest pitch to the highest.

The information given by each key is used to locate a cell within a 21x21 grid which will have a value in the range 0 - 5.

Value A is the sum of the six values; once it has been found, push the black button on the display.

Each of the keys and their labels will turn black or white, the labels now are in the range 0 - 9.

The new information given by each key is used to locate a cell within a 12x20 grid which have a value in the range 1 - 6.

Add each of these new values to value A to obtain value B.

Press the keys such that when read left to right, the sequence of keys give the binary representation of value B, and press the black display button to submit the sequence.

Submitting the correct sequence will progress the module to the next of two stages.

Submitting an incorrect sequence will cause a strike to be issued and reset the module such that value A will need to be recalculated.

Step 1: Finding value A

On this grid,

- the columns on the left refers to the colour of the key and the labelled digit.
- the row along the top refers to the colour of the label and the note played when the key is pressed.

	R1	R2	R3	R4 G1	R5 G2	R6 G3	G4 B1	G5 B2	G6 B3	B4 C1	B5 C2	B6 C3	C4 M1	C5 M2	C6 M3	M4 Y1	M5 Y2	M6 Y3	Y4	Y5	Y6
R1	4	0	5	1	3	2	0	5	4	2	1	3	5	4	0	3	2	1	0	4	5
R2	2	4	1	0	5	3	1	4	2	3	5	0	2	1	4	0	5	3	4	2	1
R3	5	3	2	4	1	0	5	2	3	0	4	1	3	5	2	1	0	4	2	5	3
R4 G1	0	1	3	5	2	4	3	0	1	5	2	4	0	3	1	2	4	5	3	1	0
R5 G2	1	2	0	3	4	5	2	1	0	4	3	5	1	0	2	5	3	4	2	0	1
R6 G3	3	5	4	2	0	1	4	3	5	1	0	2	4	3	5	2	1	0	5	3	4
G4 B1	5	0	1	4	3	2	0	5	1	2	4	3	5	1	0	3	4	2	1	0	5
G5 B2	4	3	2	1	5	0	2	4	3	0	5	1	2	4	3	1	0	5	4	2	3
G6 B3	2	4	5	0	1	3	5	2	4	3	1	0	4	5	2	0	3	1	2	5	4
B4 C1	1	2	3	5	0	4	3	1	2	4	0	5	3	2	1	4	5	0	3	1	2
B5 C2	3	1	0	2	4	5	1	3	0	5	2	4	1	3	0	5	4	2	0	3	1
B6 C3	0	5	4	3	2	1	4	0	5	1	3	2	0	4	5	2	1	3	5	4	0
C4 M1	2	4	3	5	1	0	2	4	3	0	5	1	2	3	4	1	0	5	4	2	3
C5 M2	4	0	2	1	5	3	0	2	4	3	1	5	4	0	2	3	5	1	2	0	4
C6 M3	5	3	1	0	4	2	5	3	1	2	4	0	3	5	1	0	2	4	1	3	5
M4 Y1	3	1	5	2	0	4	3	1	5	4	0	2	1	3	5	2	4	0	5	1	3
M5 Y2	1	3	4	5	2	0	1	4	3	0	2	5	4	1	3	5	0	2	3	4	1
M6 Y3	0	2	3	4	1	5	2	3	0	1	5	4	3	0	2	4	1	5	0	2	5
Y4	2	5	0	1	4	3	0	5	2	3	4	1	5	2	0	1	3	4	2	0	5
Y5	5	4	1	0	3	2	4	1	5	2	3	0	1	5	4	0	2	3	1	5	4
Y6	4	0	2	3	5	1	2	0	4	5	1	3	0	4	2	3	5	1	4	2	0

Step 2: Finding value B

On this grid,

- the row along the top is the colour of the key.
- the row along the bottom is the label on the key.
- the column on the left is the colour of the label.
- the column on the right is the position of the key.

	W										K										
W	1	6	4	5	3	2	4	1	5	6	4	2	3	1	5	2	6	4	1	3	**1**
	3	2	1	6	4	5	6	3	1	2	3	4	5	6	3	4	2	1	6	5	**2**
	5	3	6	2	1	4	5	2	6	3	2	5	1	4	2	5	3	6	4	1	**3**
	2	4	5	3	6	1	3	4	2	5	1	6	4	3	6	1	5	2	3	4	**4**
	4	5	3	1	2	6	2	5	3	4	6	1	2	5	4	6	1	3	5	2	**5**
	6	1	2	4	5	3	1	6	4	1	5	3	6	2	1	3	4	5	2	6	**6**
K	4	2	3	6	1	5	3	4	6	2	3	1	4	5	2	1	6	3	5	4	**1**
	1	5	4	2	6	3	4	5	2	1	4	5	3	6	1	5	4	2	6	3	**2**
	5	3	2	1	4	6	5	2	1	3	2	6	5	4	6	3	2	1	4	5	**3**
	2	6	1	3	5	4	1	3	2	6	5	4	1	3	4	2	5	6	3	1	**4**
	6	1	5	4	3	2	6	1	4	5	3	2	6	2	3	4	1	5	2	6	**5**
	3	4	6	5	2	1	2	6	3	4	6	3	2	1	5	6	3	4	1	2	**6**
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	

Step 3: Key entry

The submitted binary digits depend on the colour of the key, and whether or not the key has been pressed:

	W	K
Pressed	1	0
Not Pressed	0	1