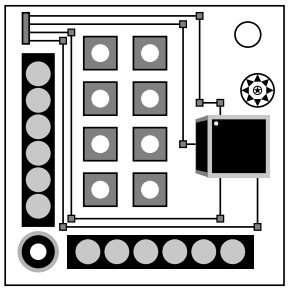
On the Subject of The Cube



The mothership has been contacted. They've sent an executive toy...

- This module has a rotating cube, four wires, two elongating displays, and nine buttons.
- To progress to the next stage, push down correct square buttons, then press the round button. Complete all eight stages to disarm the module.
- Either having any incorrect buttons pushed down, or not having all correct ones pushed down, will reset the module back to stage 1.
- Correct pushes are determined by a Key, calculated out of various values. The values are assosiated with different pieces of module information.

Part 1: Preparing the Values

a. The cube has six faces, each with a digit from 0-9.
To the right is a net of the cube, with the order of face digits from 1 to 6, shown in their proper orientation.

• 1	<- green			
2	3	4	5	
• 6	<- red			

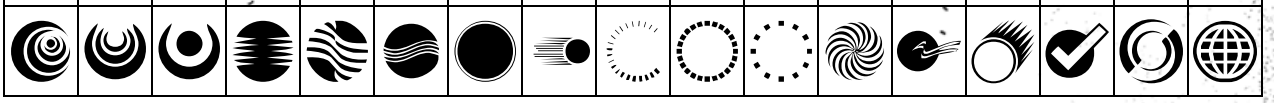
b. The wires extend from the starting hub at top-left corner, ordered by their positions there from top to bottom.

Red	(modules on bomb) + 7	**Orange**	(green square buttons) + 3
Green	(blue square buttons) + 7	**Purple**	sum of all digits on cube
Blue	(position of wire) + 5	**White**	= 6

c. The cube will do six movements in order, then pause briefly and repeat.
Movements are observed from an aerial perspective upon module base.

	last digit in serial number		= 4
	first digit in serial number		= 7
	square buttons with same colour as 3rd wire		
	square buttons with same colour as 1st wire		

d. The left and bottom displays have eight symbols each.
Convert the symbols to digits from top to bottom, left to right.

1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7
																

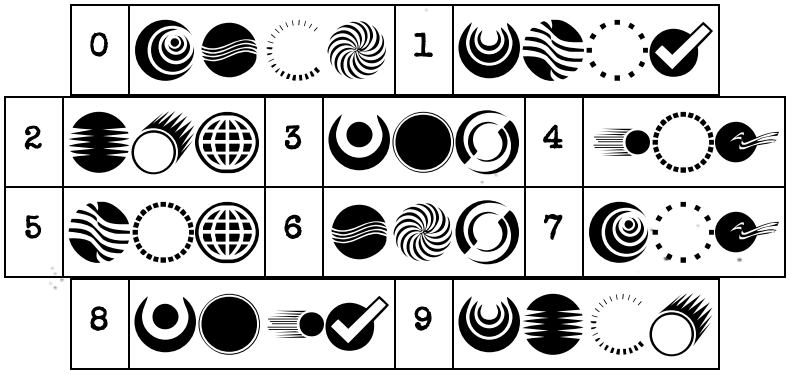
Part 2: Calculating the Key

1. Generate left to right digits of a 6-digit number from values you've got:
   Digit 1 = (1st movement value + 6th face digit + 3rd wire value) modulo 10 ;
   Digit 2 = (2nd movement value + 5th face digit + 4th wire value) modulo 10 ;
   Digit 3 = (3rd movement value + 4th face digit + 1st wire value) modulo 10 ;
   Digit 4 = (4th movement value + 3rd face digit + 2nd wire value) modulo 10 ;
   Digit 5 = (5th movement value + 2nd face digit) modulo 8 ;
   Digit 6 = (6th movement value + 1st face digit) modulo 9 .

2. Take the 6-digit number above and multiply it by 100.
   Add that with the converted left and bottom displays, but disregard any and all carry digits during the operation.
   The resulting 8-digit number is your Key.

Part 3 : Finding the Pushes

For each stage, use the digit of the Key in the position matching current stage number, ordered from the left, to get a group of symbols:



Only push down square buttons as follows, before pushing the round button:

- Stage 1, 3 or 5: Push down all square buttons with a symbol in the group.
- Stage 2: Push down all square buttons either with a symbol in the group, or with the same symbol as the round button.
- Stage 4: Push down all square buttons either with a symbol in the group, or with the same colour as the round button.
- Stage 6: Push down all square buttons either with a symbol in the group, or with the same colour as the 1st wire.
- Stage 7: Push down all square buttons either with a symbol in the group, or with the same colour as the 3rd wire.
- Stage 8: Push down all square buttons WITHOUT a symbol in the group.

A spinner above the cube makes one triangle green for each stage you complete.