# On the Subject of The Cube

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

- The module consists of a rotating cube, a rotating stage spinner, four coloured wires, eight square variable buttons, two cipher displays and a circular submit button.
- To disarm the module, you must press the correct combination of buttons at each stage. Entering an incorrect combination will cause a strike and reset the module.
- You need to obtain a final cipher, comprised of three initial ciphers in order to calculate the correct buttons for each stage.

### Cipher #1

• The first cipher is obtained using the formulae in the below table. A '%' sign refers to the modulo operation.

Digit#	Formula
1	(RC1 + F6 + WC3) % 10
2	(RC2 + F5 + WC4) % 10
3	(RC3 + F4 + WC1) % 10
4	(RC4 + F3 + WC2) % 10
5	(RC5 + F2) % 8
6	(RC6 + F1) % 9

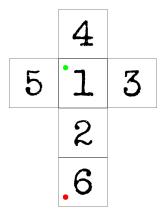
# <u>Rotation Codes (RC)</u>

- The cube will move six times before pausing briefly and repeating. Observe the cube's movements to attain the rotation codes.
- · Movement references are given from an aerial perspective.
- · Wire references are counted at the wire starting block from top to bottom.
- Button colours are EXCLUSIVE of the circular submit button.
- White wires and grey buttons are treated as the same colour.

Movement	Rotation Code		
Rotate clockwise	4		
Rotate counterclockwise	7		
Tip forwards	First digit of serial number		
Tip backwards	Last digit of serial number		
Tip left	# of buttons the same colour as the third wire		
Tip right	# of buttons the same colour as first wire		

#### Cube Faces (F)

- Each face of the cube contains a digit.
- The green LED represents the top face (LED is in the top left corner).
- The red LED represents the bottom face (LED is in the bottom left corner).
- The digits on the other faces will be oriented correctly when the top and bottom faces are oriented correctly.
- Use the below cube net to determine each cube face:



#### Wire Codes (WC)

- The wire positions are defined by the wire starting block, reading from top to bottom.
- Use the below table to calculate each wire code. In each instance, use only the last digit of the answer:

Colour	Wire Code		
Blue	Wire position + 5		
Green	# of blue buttons + 7		
Orange	# of green buttons + 3		
Purple	Sum of the digits on the cube		
Red	# of modules on the bomb + 7		
White/Grey	6		

## Cipher #2 & Cipher #3

- Each of the cipher displays shows a repeating transmission of the second and third ciphers.
- Each symbol represents a letter of the alphabet. Translate the symbol using the translator page of the manual.
- Once English equivalent letters have been obtained, convert each letter to its equivalent number (with A being 1).
- Modulo 10 each digit to obtain your eight digit cipher.

### Final Cipher

- The final cipher is calculated by adding each of the individual digits of the three ciphers together.
- Begin by multiplying the first cipher by 100 and then add each respective column of digits.
- Modulo 10 each of the eight answers to get the eight digits of the final cipher.

## Solving

- Once you have obtained your final cipher, you can begin to solve the module.
- Each digit of the final cipher refers to a stage. For each digit of the cipher, press all square variable buttons that have one of the labels as determined by the below table, followed by the circular submit button:

Cipher Digit	Letters	
0 ,	A, F, I, L	
1	В, Е, К, О	
2	D, N, Q	
3	C, G, P	
4	н, Ј, М	
5	E, J, Q	
6	F, L, P	
7	A, K, M	
8	C, G, H, O	
9	B, D, I, N	

• Additionally, at the following stages:

Stage	Buttons To Press	
2	Press every button that contains the execute button label	
4	Press every button that contains the execute button colour	
6	6 Press every button that is the colour of the first wire	
7	Press every button that is the colour of the third wire	

• For stage eight, press every button that does NOT have a label for the given cipher digit.

# **Translator**

• Use the below table to translate between the symbol language and English:

Letter	Symbol	Letter	Symbol
A		J	
В	<b>(1)</b>	K	•
C	•	L ,	
D		M	
E		N	
F		0	<b>©</b>
G		P	
Н		Q	
I	Same.	х	<b>*</b>