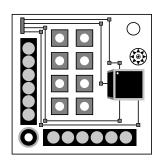
# On the Subject of The Cube

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.
- 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

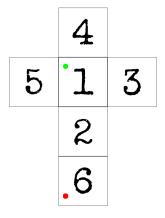
# <u>Rotation Codes (RC)</u>

- 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	\$1 <sup>3</sup>	
Tip backwards	Last digit of serial number	Δŷ.	
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:

Buttons To Press
Press every button that contains the execute button label
Press every button that contains the execute button colour
Press every button that is the colour of the first wire
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.

# <u>Translator</u>

• 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 P	
D		M	
E		N	
F		0	<b>©</b>
G		P	0
Н		Q	
I	Same.	х	<b>*</b>