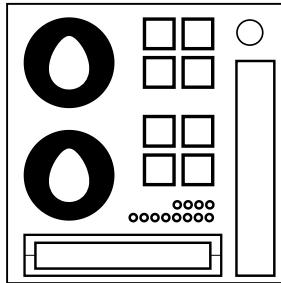


## On the Subject of Devilish Eggs

*And you thought you were getting an egg pun...*

- This module contains four numbered buttons with different colors, four “cooking buttons” that initially don’t have colors or labels, a thermometer, a constantly rotating triangular prism with one message on each side, and two red eggs going through a series of 6 rotations each, with colored dots on the sides to disambiguate rotations.
- This module requires input twice. In the first stage, 8 numbered buttons must be pressed, and in the second stage, 4 cooking buttons must be pressed to solve the module.
- Inputting anything incorrectly will incur a strike, but will not reset the inputs given so far nor the information on the module itself. The LEDs on the bottom of the module can be used to determine how much has been inputted so far.
- The colors that can appear on the numbered buttons, cooking buttons, or dots are magenta, orange, green, and cyan.



### Egg rotations:

- There are two types of rotations an egg can perform:
  - A turn (T) consists of the orientation of the egg changing when viewed normally, akin to the hands of a clock spinning. These rotations always end in the egg’s tip “pointing” towards a cardinal direction. A turn is either clockwise or counterclockwise (CW/CCW) and is 90°, 180°, 270°, or 360° long.
  - A twist (W) consists of the egg spinning in one direction when viewed, from above the tip of the egg looking down. These rotations always end in one of the four colored dots directly on top of the egg’s face (as when viewed normally). A twist is either clockwise or counterclockwise (CW/CCW) and is 90°, 180°, 270°, or 360° long.
- Each egg performs 6 rotations before pausing and repeating the sequence.

### Step 1: Caesar Scramble

- One side of the triangular prism will display nonsensical symbols. The other two will display a string of numbers and a string of letters. Those two strings are to be used in this step.
- Take the string of 8 numbers and modify it based on the rotations of the top egg in order:

Rotations:		Modification:
T270CCW	W180CW	Swap the first and third digits.
T90CW	W90CCW	Rotate the string four places forward.
W360CW	T90CCW	Swap the second and sixth digits.
T180CCW	W270CCW	Reverse the string.
T180CW	W90CW	Rotate the string three places backwards.
T360CCW	W360CCW	Swap the seventh and eighth digits.
W270CW	T270CW	Reverse the first half of the string.
W180CCW	T360CW	Reverse the second half of the string.

- Modify the string of letters in the same way, but using the rotations of the bottom egg.
- After both strings are modified, for each letter in the letter string do the following:
  - Pair it with the digit in the same place in the number string.
  - Move forwards through the alphabet however many letters the digit specifies, wrapping around if necessary. However, vowels and consonants are treated entirely separately. Only move through the vowels of the alphabet if the letter is a vowel, and likewise with consonants (e.g. A shifted 2 becomes I, M shifted 3 becomes Q).
  - (N.B.: Y is considered a vowel.)
- After all eight letters have been successfully shifted, press the numbered buttons that correspond to the letters of the string from left to right.
  - 1: O, Q, R, F, J, C
  - 2: T, Z, D, V, U, N, S
  - 3: E, G, P, I, W, Y
  - 4: M, X, A, K, B, H, L

- When the first correct numbered button is pressed, the gauge will rise to a temperature marking. After each subsequent correct press, the reading will change to a different marking. Make note of all eight temperature readings in order.
- Upon the eighth successful numbered button press the cooking buttons will activate and the unused text on the prism will turn into some letters contained in angle brackets.

### Step 2: The Devil's Grill

- A  $5 \times 5$  matrix of letters will be used to decrypt the letters in angle brackets. Initially, the matrix is simply the alphabet minus the letter X, as such:

A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T
U	V	W	Y	Z

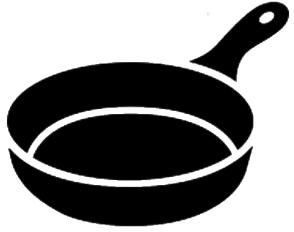
- For each of the eight temperature readings obtained previously, do the following:
  - Take the position of the reading, with the bottom-most label being 1 and the top-most label being 5, and use that as the row in the matrix.
  - Take the label itself and divide it by 5, then use that as the column.
  - Take the obtained letter and move it to the bottom-right cell, shifting other letters up as necessary.
- Next, use the last rotation of the bottom egg to modify the grid again:
  - If the rotation is a clockwise turn, move each column one to the right, bringing the fifth column around.
  - Otherwise, if the rotation is a counterclockwise turn, move each column one to the left, bringing the first column around.
  - Otherwise, if the rotation is a clockwise twist, move each row one down, bringing the fifth row around.
  - Otherwise, if the rotation is a counterclockwise twist, move each row one up, bringing the first row around.

- Now perform the following steps to decrypt the text in angle brackets, using the modified digits in order for each letter. For the first 4 letters, use the first 4 rotations of the top egg. For the last 4, use the first 4 of the bottom egg.
  - Examine the box in the table below that contains the relevant rotation. Take the relevant digit and move that many boxes in reading order, looping around if necessary.
  - Take the letter and locate it in the matrix. Then, perform the instruction listed in the new box. The letter in the new position is the decrypted letter.

<b>T90CW/W270CW:</b> Flip across the Y-axis.	<b>T90CCW/W270CCW:</b> Flip across the X-axis.	<b>T180CW/W360CW:</b> Flip across the NE/SW diagonal.	<b>T180CCW/W360CCW:</b> Flip across the NW/SE diagonal.
<b>T270CW/W90CW:</b> Rotate the grid 90° CW.	<b>T270CCW/W90CCW:</b> Rotate the grid 90° CCW.	<b>T360CW/W180CW:</b> Rotate the grid 180°.	<b>T360CCW/W180CCW:</b> Remain in place.

- Split the final decrypted string into letter pairs and press the cooking buttons based on the commands received in order. The commands are as follows:
  - SS:** Press the Sunny Side Up button.
  - FR:** Press the Fried button.
  - SC:** Press the Scrambled button.
  - BL:** Press the Boiled button.
  - CM, CO, CG, CC:** Press the cooking button colored magenta, orange, green, or cyan respectively.
  - CT, CB:** Press the cooking button colored the same as the dots on the top or bottom egg respectively.
  - MA, MB, MC, MD:** Press the cooking button whose color matches the numbered button with label 1, 2, 3, or 4 respectively.
  - RE:** Press the same button as the previous command instructed. If this is the first command, press the orange cooking button.
  - IS:** If the module *egg* is present on the bomb, press the Sunny Side Up button. Otherwise, press the Scrambled button.
  - IB:** If the either the module *The Cube* or *Unfair Cipher* is present on the bomb, press the Fried button. Otherwise, press the Boiled button.

Appendix 3GG: Cooking button labels:

Sunny Side Up:	Fried:
	
Scrambled:	Boiled:
	

*...eggspect the uneggspected.*