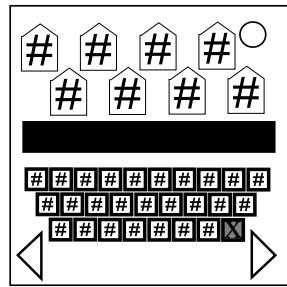


## On the Subject of The Cryptic Cycle

This module is as ~~§HILLJII~~ as it looks.

This module consists of a screen, eight labelled dials, and three randomised keyboards that can be cycled through using the arrow buttons.



The labels on the dials, when decrypted and read from left to right, spell out an eight letter word.

Each dial gives two bits, which, when put into the module's corresponding logical operators, returns two truth values.

- Add the number of ports to the number of  $90^\circ$  clockwise rotations, starting from north, to direction the dial is pointing.  
If the is number is odd, the first bit of the dial is a 1, otherwise it is a 0.
- Find the number of  $90^\circ$  clockwise rotations, starting from the direction the dial is pointing, to the direction the label is pointing.  
If the is number is odd, the second bit of the dial is a 1, otherwise it is a 0.

These truth values dictate what each letter in the word changes to in order to produce the encrypted word.

Each letter of the encrypted word is translated into a glyph from one of three sets.

The negative spaces of these glyphs are labelled on the dials.

Once deciphered, find the word in the table below, the word written below it is the word that should be entered.

Apply the same encryption to the response word, and type out the encrypted response word using the keys.

The encrypted response must use the glyphs from the same set as the dial labels.

The word is automatically submitted when eight keys are pressed.

The red button can be pressed at any time before the eighth key is pressed to delete the last input.

Inputting any of the eight glyphs incorrectly will cause a strike to be issued and reset the module.

## Operators

Separate the eight dials into two groups of four, consisting of the four upper and four lower dials respectively.

Starting from OR, move one space in the direction of each dial in each set:

- The first operator is given by the upper dials.
- The second operator is given by the lower dials.

Note:

If both sets of dials give the same operator, the second operator becomes NAND.

				AND				
			XNOR		XOR			
		NOR		⇒		NOR		
	XOR		⇐		⇐		XNOR	
AND		⇒		OR		⇒		AND
	XNOR		⇐		⇐		XOR	
		NOR		⇒		NOR		
			XOR		XNOR			
				AND				

		Truth Value								
First bit	Second bit	AND	OR	XOR	NAND	NOR	XNOR	⇒	⇐	
1	1	T	T	F	F	F	T	T	T	
1	0	F	T	T	T	F	F	F	T	
0	1	F	T	T	T	F	F	T	F	
0	0	F	F	F	T	T	T	T	T	

## Encryption Tables

The glyphs in the table are facing north.  
This is also how they appear on the keyboards.

	Set 1	Set 2	Set 3
A	X	◻	Y
B	◻	◻	◻
C	◻	◻	◻
D	◻	▼	◻
E	◻	◻	▼
F	◻	◻	◻
G	◻	◻	◻
H	+	◻	◻
I	◻	◻	◻
J	◻	◻	◻
K	◻	◻	◻
L	◻	◻	◻
M	◻	◻	◻
N	◻	◻	◆
O	◻	◻	◻
P	◻	◻	◻
Q	◻	◻	◻
R	◻	◻	◻
S	◻	◻	◻
T	X	◻	◻
U	◻	◻	◻
V	◻	◻	◻
W	◻	◻	◻
X	X	◻	◻
Y	◻	Y	◻
Z	◻	◻	◻

	1st truth value	T		F	
		T	F	T	F
	2nd truth value				
	A	G	V	C	X
	B	O	E	M	A
	C	R	N	F	S
	D	I	J	O	D
	E	Y	X	V	T
	F	S	D	G	W
	G	H	H	I	R
	H	Q	P	A	P
	I	B	S	N	U
	J	F	C	R	J
	K	L	R	Q	Z
	L	P	G	W	F
	M	Z	K	B	Y
	N	A	B	J	Q
	O	T	M	D	G
	P	N	Q	H	E
	Q	K	L	T	I
	R	V	Y	Z	L
	S	C	A	E	C
	T	U	F	Y	K
	U	J	T	K	V
	V	M	W	X	O
	W	D	Z	U	H
	X	E	I	L	N
	Y	X	U	P	M
	Z	W	O	S	B

Letter

## Keyword Table

ADVANCED	ADDITION	ALLOCATE	ALTERING	BINARIES	BILLIONS	BULKHEAD	BULLETED
FORWARDS	JIGSAWED	HAZARDED	NUMERALS	MONOTONE	QUICKEST	TOGETHER	YOURSELF
CIPHERED	CIRCUITS	COMPUTER	CONTINUE	DECRYPTS	DIVISION	DISCOVER	DISPOSAL
DISPOSAL	HUNKERED	ILLUSION	BULLETED	VOLATILE	STARTING	FORTRESS	STANDARD
EXAMINED	EXAMPLES	EQUATION	EQUIPPED	FINISHED	FINDINGS	FORTRESS	FORWARDS
GLOOMING	MULTIPLY	ULTRARED	BILLIONS	NANOGRAM	KNUCKLED	YEASAYER	JIMMYING
GAUNTLET	GAMBLING	GATHERED	GLOOMING	HAZARDED	HAZINESS	HUNKERED	HUNTSMAN
PROJECTS	KILOWATT	QUINTICS	QUADRANT	POSITION	LINEARLY	ALTERING	BINARIES
INDICATE	INDIGOES	ILLUSION	ILLUMINE	JIGSAWED	JIMMYING	JUNCTION	JUDGMENT
OBSCURED	LABELING	ZUGZWANG	VOLTAGES	UNDERLIE	COMPUTER	INDICATE	ZYMOGRAM
KILOWATT	KINETICS	KNOCKOUT	KNUCKLED	LIMITING	LINEARLY	LINKAGES	LABELING
JUNCTION	CIPHERED	MULLIGAN	HUNTSMAN	REVERSED	NUMBERED	POSITIVE	ZIGZAGGY
MONOGRAM	MONOTONE	MULTIPLY	MULLIGAN	NANOGRAM	NANOTUBE	NUMBERED	NUMERALS
YELLOWED	OCTUPLES	ROTATION	GATHERED	CIRCUITS	OBSERVED	YIELDING	CONTINUE
OCTANGLE	OCTUPLES	OBSERVED	OBSCURED	PROGRESS	PROJECTS	POSITION	POSITIVE
EQUIPPED	BULKHEAD	ILLUMINE	ALLOCATE	STOPPING	LIMITING	TRIGGERS	LINKAGES
QUADRANT	QUADPLEX	QUICKEST	QUINTICS	REVERSED	REVOLVED	ROTATION	RELATION
MONOGRAM	HAZINESS	WHATEVER	DISCOVER	TOGGLING	PROGRESS	NANOTUBE	FINISHED
STARTING	STANDARD	STOPPING	STOPWORD	TRIGGERS	TRIANGLE	TOGGLING	TOGETHER
VICELESS	WINGDING	EXAMINED	EXAMPLES	QUADPLEX	KNOCKOUT	DECRYPTS	UNDERRUN
UNDERRUN	UNDERLIE	ULTIMATE	ULTRARED	VICINITY	VICELESS	VOLTAGES	VOLATILE
OCTANGLE	RELATION	ZIPPERED	EQUATION	GAUNTLET	WINNABLE	ULTIMATE	ADVANCED
WINGDING	WINNABLE	WHATEVER	WHATNOTS	YELLOWED	YEASAYER	YIELDING	YOURSELF
STOPWORD	INDIGOES	KINETICS	GAMBLING	ADDITION	TRIANGLE	WHATNOTS	DIVISION
		ZIPPERED	ZIGZAGGY	ZUGZWANG	ZYMOGRAM		
		JUDGMENT	REVOLVED	VICINITY	FINDINGS		