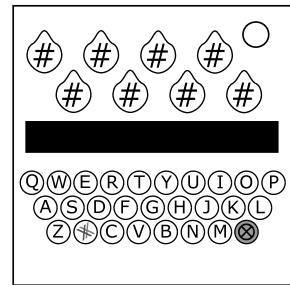


## On the Subject of The Playfair Cycle

*Just because it plays **fair** doesn't mean it'll play **nice**.*

This module consists of a screen, eight dials with cyan labels, and a QWERTY keyboard.

The X key on the keyboard is faulty and as such, the module no longer recognises X as a letter of the alphabet.



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

The encryption process is as follows:

- The number of  $72^\circ$  rotations, starting from north, of each pair of adjacent dials are interpreted as two digit base 5 numbers.
- Starting from  $A=0$ , the numbers given by each pair of adjacent dials refer to the alphabetic positions of the first seven letters of a  $5 \times 5$  keysquare in reading order.  
(Since X is omitted, Y=23 and Z=24)
- The remaining 18 letters fill the rest of the keysquare in alphabetical order.
- The word is split into four pairs of letters.  
If a pair contains the same letter twice, the second is changed to a Z.
- Each pair of letters is altered:
  - If both letters belong to the same row of the keysquare, shift both letters one space to the right along the row.
  - If both letters belong to the same column of the keysquare, shift both letters once space down the column.
  - Otherwise, the letters lie on diagonally opposite corners of a rectangle, the encrypted pair consists of the letters in the horizontally opposite corners from the original pair.

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 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 cancel the input.

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

## Keyword Table

ADVANCED	ADVOCATE	ALLOTYPE	ALLOTTED	BINARIES	BINOMIAL	BULLHORN	BULWARKS
DECIMALS	ULTRAHOT	ADVANCED	ILLUSORY	JUNCTURE	LIMERICK	STANDARD	EQUATORS
CIRCULAR	CIRCUITS	COMMANDO	COMPILER	DECRYPTS	DECIMALS	DISPATCH	DISCRETE
TRICKIER	ALLOTTED	PROGRAMS	PROGRESS	YEARLONG	YOKOZUNA	KILOBYTE	BINOMIAL
ENCIPHER	ENCODING	EQUATORS	EQUALISE	FINISHED	FINNICKY	FORMULAE	FORTUNES
QUOTIENT	STOCKADE	MONOGRAM	VOLUMING	OCTANGLE	WINGSPAN	OBSTRUCT	HUNGRIER
GAUNTLET	GAUCHEST	GATEPOST	GATEWAYS	HOTLINKS	HOTHEADS	HUNTRESS	HUNGRIER
ZIGGURAT	KILOWATT	STANZAIC	BULWARKS	FORTUNES	REVERSED	STOCCATA	POSITRON
INDICATE	INDIRECT	ILLUSORY	ILLUDING	JIGSAWED	JIGGLING	JUNKYARD	JUNCTURE
WHATSITS	DISCRETE	OCTONARY	UNDERRUN	GAUCHEST	JUNKYARD	MULCTING	QUOTABLE
KILOWATT	KILOBYTE	KNOCKING	KNOWABLE	LIMITING	LIMERICK	LINKWORK	LINGERED
ENCIPHER	BULLHORN	ZIGZAGGY	JIGGLING	ENCODING	BINARIES	RELATIVE	VICINITY
MONOGRAM	MONOLITH	MULTITON	MULCTING	NANOGRAM	NANOBOTS	NUMEROUS	NUMERATE
YEASAYER	HUNTRESS	ROTATORS	NANOBOTS	INDIRECT	TOMOGRAM	OBSTACLE	LINKWORK
OCTANGLE	OCTONARY	OBSTRUCT	OBSTACLE	PROGRESS	PROGRAMS	POSTSYNC	POSITRON
ZYMOGENE	REVEALED	CIRCUITS	ZYMOLOGY	COMMANDO	JIGSAWED	VOLITION	WINGDING
QUOTIENT	QUOTABLE	QUIRKISH	QUITTERS	REVERSED	REVEALED	ROTATORS	RELATIVE
NANOGRAM	ILLUDING	UNDOINGS	KNOCKING	TOMAHAWK	ULTERIOR	CIRCULAR	QUITTERS
STANZAIC	STANDARD	STOCKADE	STOCCATA	TRIGGERS	TRICKIER	TOMOGRAM	TOMAHAWK
ADVOCATE	EQUALISE	VICENARY	QUIRKISH	DECRYPTS	FORMULAE	TRIGGERS	LINGERED
UNDERRUN	UNDOINGS	ULTERIOR	ULTRAHOT	VICINITY	VICENARY	VOLITION	VOLUMING
FINNICKY	ALLOTYPE	FINISHED	HOTHEADS	POSTSYNC	YOURSELF	MONOLITH	COMPILER
WINGDING	WINGSPAN	WHATNESS	WHATSITS	YEARLONG	YEASAYER	YOKOZUNA	YOURSELF
HOTLINKS	WHATNESS	GATEPOST	NUMERATE	MULTITON	INDICATE	GATEWAYS	KNOWABLE
ZIGGURAT		ZIGZAGGY	ZYMOLOGY	ZYMOGENE			
NUMEROUS		DISPATCH	LIMITING	GAUNTLET			