

code code

ISSUE NO.1

8/8/2024



This book is designed to be an engaging and interactive experience that is both informative and entertaining. It focuses on the theme of hidden messages and codes, with key content carefully summarized and presented using playful, cryptic typography. Bright neon colors were chosen to capture attention and enhance the book's visual appeal. Throughout the book, readers will find puzzles and coded sections that encourage active participation, requiring them to use provided guidelines to decode messages, making the experience both educational and fun.

# Color Palette

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Bright neon colors can be a powerful design choice for a magazine, especially one focused on engaging topics like codes and ciphers. Incorporating bright neon colors into the magazine can significantly enhance its visual appeal and reader engagement. By carefully balancing these vibrant hues with other design elements, I created a magazine that is not only visually striking but also thematically cohesive and highly readable.



#1B198F



#E1E300



#FFFFFF



#DB2487

# Typography

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CO

DE

## Gopher

Gopher is a reverse contrast, geometric sans serif typeface. A typical contrast has thicker vertical strokes and thinner horizontal, but Gopher provides a unique look by switching that contrast.

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GOPHER

Light  
Regular  
Medium  
Bold  
Black

abcdefghijklmnop  
qrstuvwxyz

ABCDEFGHIJKLMNO  
PQRSTUVWXYZ

A a  
1 2 3

# Typography

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CO  
PE

## Oxygene 1

Oxygene 1 is a fun font to add creative element to typography. It only has one sub-family which is Regular.

OXYGENE 1

REGULAR

ABCDEFGH

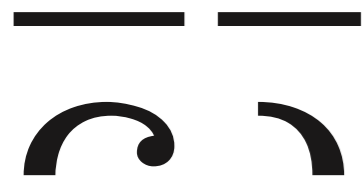
IJKLMNOP

QRSTUVWXYZ

AB  
123

# Typography

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*j̄ ȳ̄ r̄ q̄ d̄ m̄*

British type designer Phil Baines created this display FontFont in 1995. The font is ideally suited for festive occasions, editorial and publishing, logo, branding and creative industries as well as poster and billboards. FF You Can Read Me provides advanced typographical support with features such as ligatures and alternate characters.

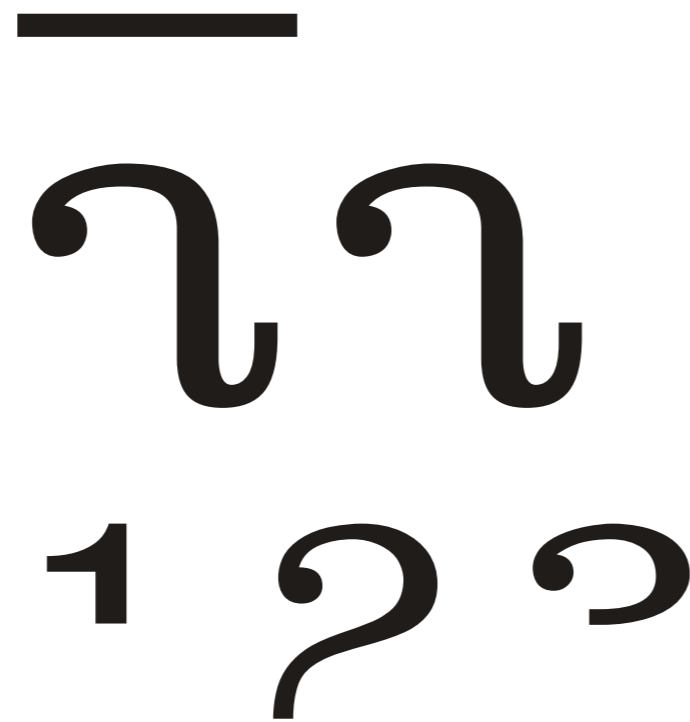
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*j̄ ȳ̄ r̄ q̄ d̄ m̄*

*r̄ q̄ d̄ l̄ r̄*

*q̄ h̄ ō d̄ ō f̄ ḡ h̄ ī x̄ l̄ m̄ n̄ ā  
r̄ l̄ r̄ ō t̄ ū v̄ w̄ x̄ ȳ z̄*

*q̄ h̄ ō d̄ ō f̄ ḡ h̄ ī x̄ l̄ m̄ n̄ ā  
r̄ l̄ r̄ ō t̄ ū v̄ w̄ x̄ ȳ z̄*



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8/3/2024





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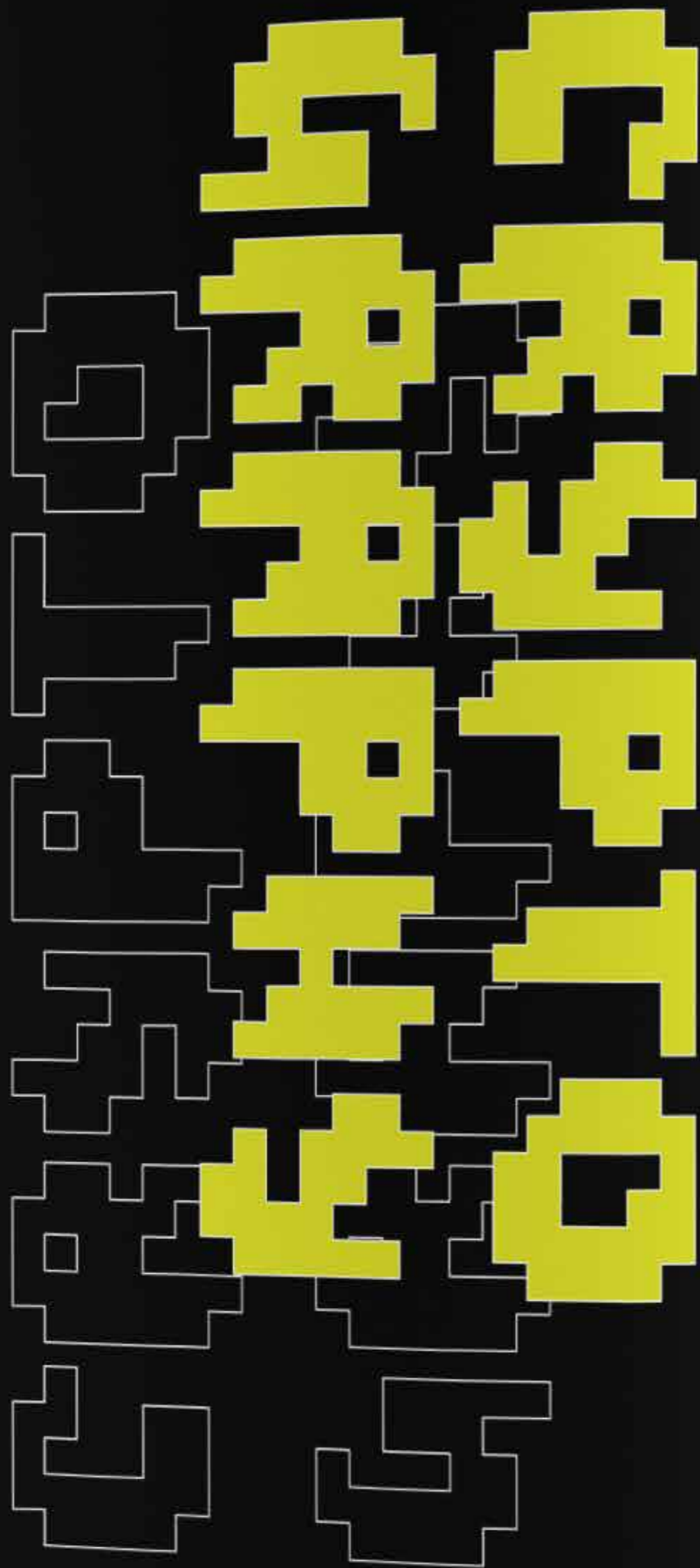
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# 01

## Introduction



derived from the Greek words *kryptos* (hidden) and *graphein* (to write), is the science and art of protecting information by transforming it into an unreadable format.

This transformation ensures that only those with the correct key can decipher and understand the message. In today's digital age, cryptography is fundamental in safeguarding data, securing communications, and ensuring privacy.



# A Journey Through Time

02

If cryptography is outlawed,  
tsqd tzyqfbx bnqq mfaj uwnafhd \*

Codes and ciphers have been used for thousands of years to send secret messages back and forth among people. They have evolved from simple codes and ciphers to more complex encryption used by computers to send information electronically.

Ymj Hfjxfw Hnumjw xyfsix tzy fx ymj  
jfwqjxy pstbs hnumjw gjhfzj tk nyx  
mnxytwnhfa xnlsnknhfshj fsi nyx  
fxxthnfynts bnym Ozqzfx Hfjxfw. Ny qfni  
ymj lwtzsibtwp ktw ymj ijajaturjsy tk rtwj  
htruqjc hwduytlwfumnh rjymtix fsi htsynszjx  
yt gj f utnsy tk wjkjwjshj ns ymj xyzid tk  
hwduytlwfumd. \*

\* decode using ceasar cipher - alphabets shifted by 5.

# Ancient Origins.

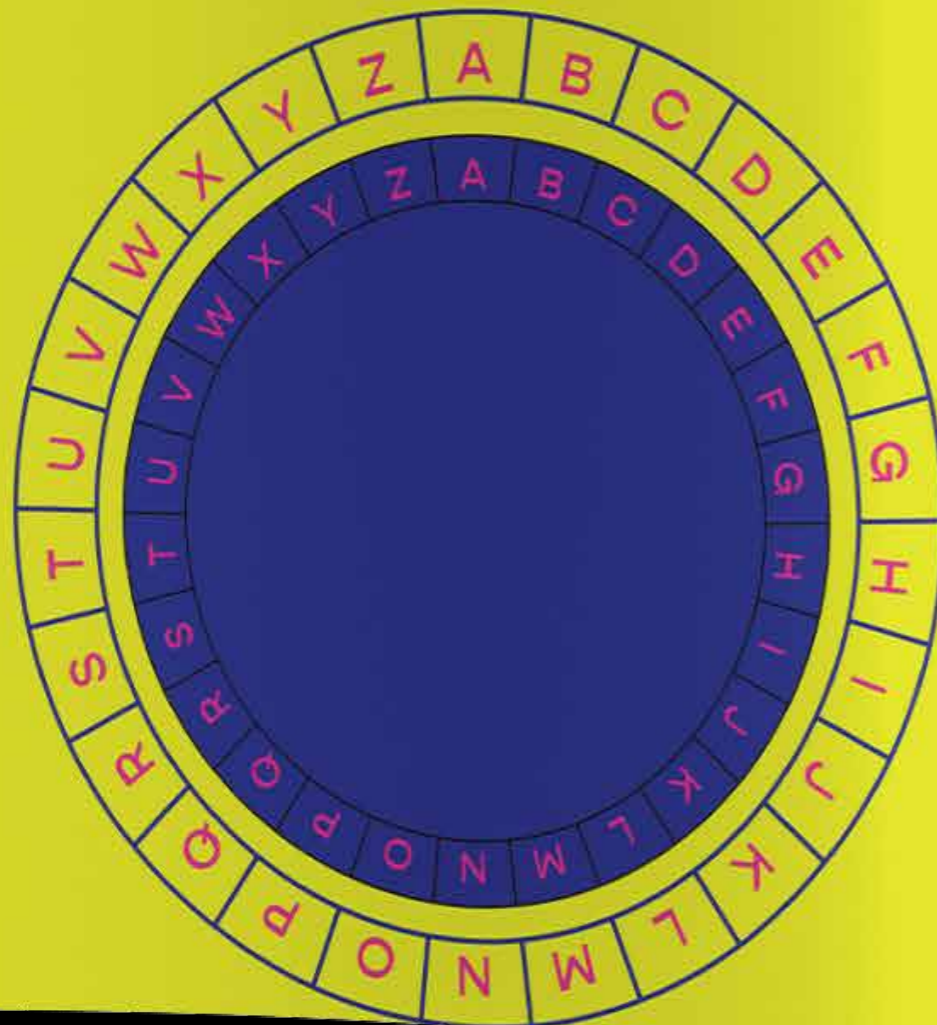


**Egyptian Hieroglyphs:** Early cryptographic methods can be traced back to ancient Egypt, where scribes used hieroglyphics to encode messages. These symbols, often cryptic to the uninitiated, laid the groundwork for secret writing.



# Ancient Origins.

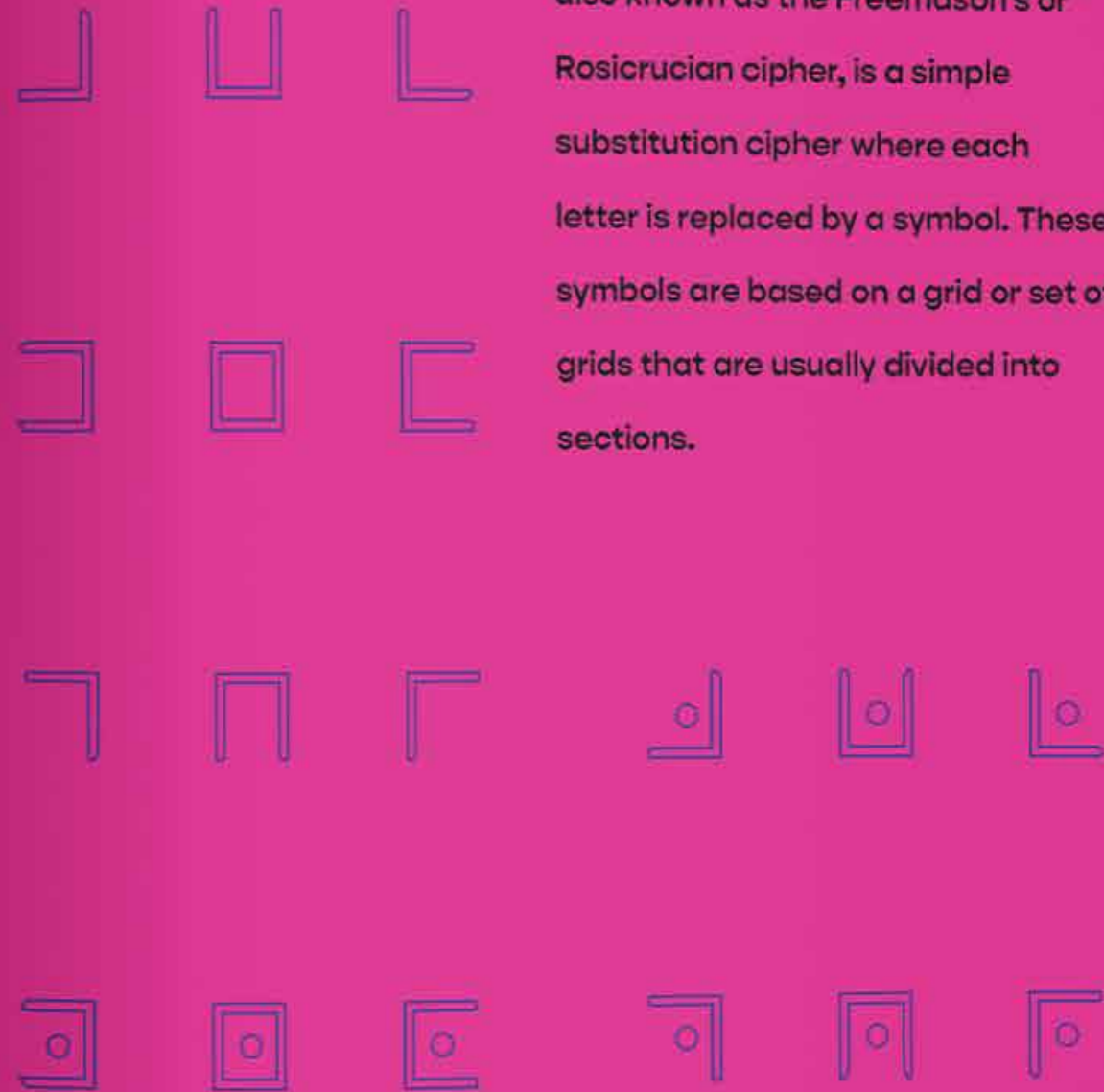
**Caesar Cipher :** One of the earliest known ciphers, attributed to Julius Caesar, who used it to protect his military communications. The Caesar Cipher shifted letters by a fixed number, making the text unintelligible to anyone without the key.



# Classical



**Pigpen Cipher :** The Pigpen Cipher, also known as the Freemason's or Rosicrucian cipher, is a simple substitution cipher where each letter is replaced by a symbol. These symbols are based on a grid or set of grids that are usually divided into sections.



# Classical

Կոդերի ժամանակ

**Morse Code :** Morse code is a method used in telecommunication to encode text characters as sequences of two different signal durations, called dots and dashes (or dits and dahs). It was developed in the 1830s and 1840s by Samuel Morse and Alfred Vail and was widely used for early radio communication.

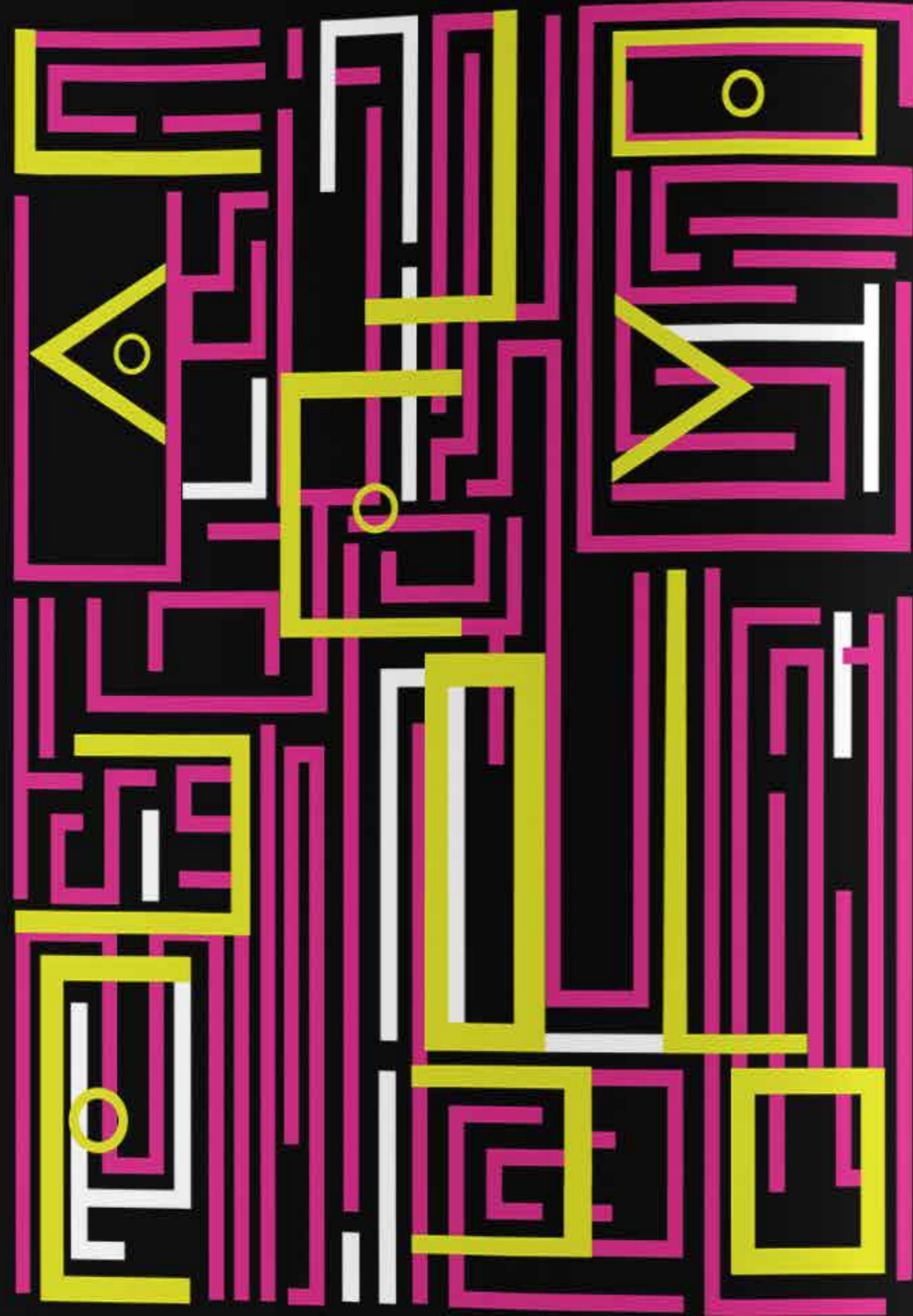
# WORLD WAR II

&

Կոդերի ժամանակ

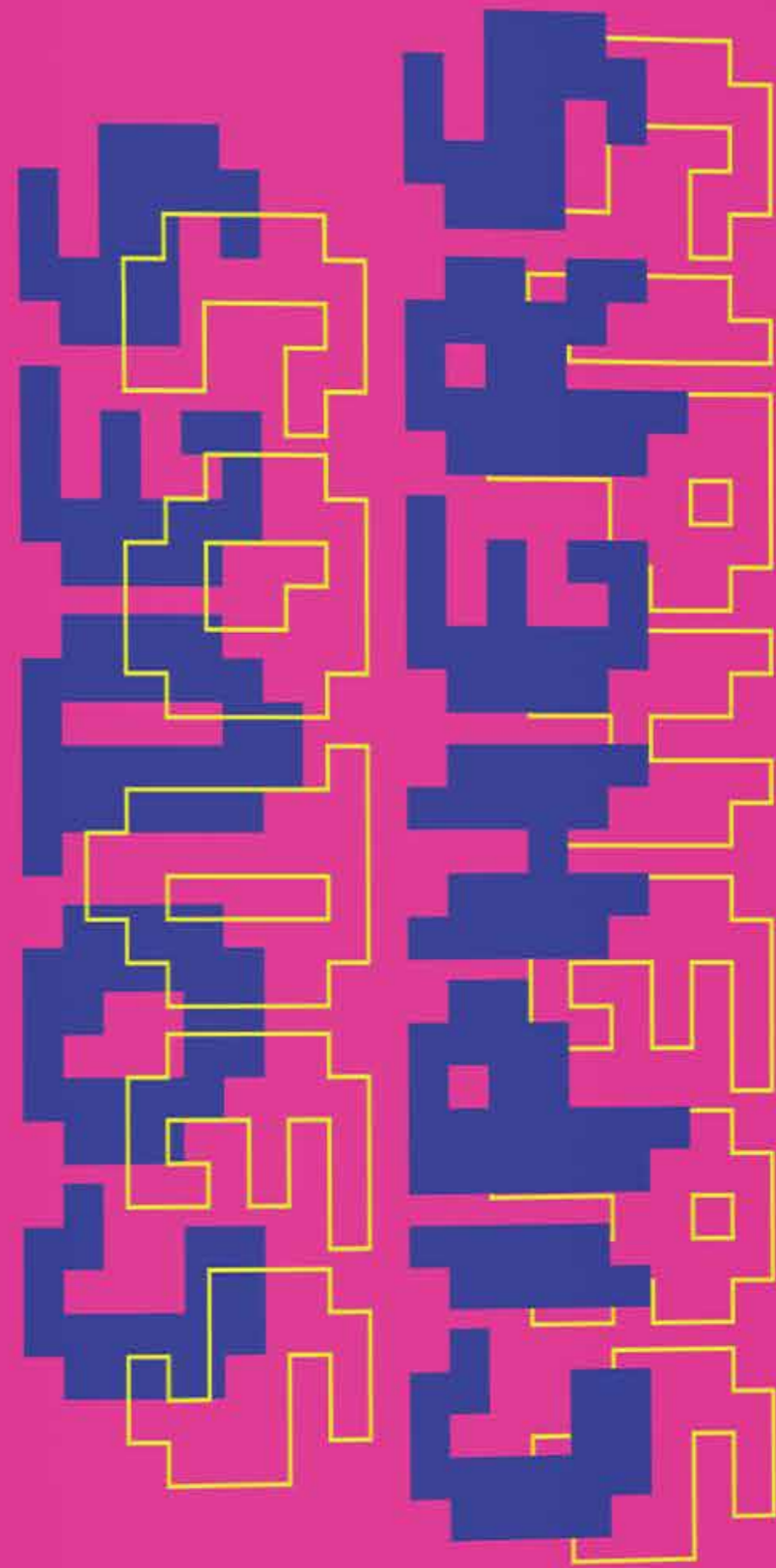
Perhaps the most famous cipher device, used by Nazi Germany, was the Enigma machine. Its complex encryption, involving rotating wheels and electrical circuits, was considered unbreakable until Alan Turing and his team at Bletchley Park cracked its code, a pivotal moment in WWII.





CAN YOU DECODE?

decode using pigeon cipher





# How does it work?

03

## Fundamental Concepts

**Encryption and Decryption:** Encryption transforms readable information into an unreadable format, while decryption converts it back to its original form.

## Keys and Algorithms:

**Symmetric Key Encryption:** Uses the same key for both encryption and decryption (e.g., AES).

**Asymmetric Key Encryption:** Uses a pair of keys—a public key for encryption and a private key for decryption (e.g., RSA).

## Cryptographic Techniques

**Hash Functions:** Algorithms like SHA-256 create a fixed-size hash value from input data, ensuring data integrity.

**Digital Signatures:** These verify the authenticity and integrity of messages, ensuring they are from a legitimate source and have not been altered.

# Journalism

## cryptography in the digital age

04

## Data Security and Privacy

**SSL/TLS Protocols:** These protocols secure web traffic, protecting data during transmission over the Internet.

**End-to-End Encryption:** Used in messaging apps like Signal and WhatsApp, this ensures only the sender and recipient can read the messages.

## Cryptocurrencies and Blockchain

**Bitcoin and Beyond:** Cryptography underpins blockchain technology, enabling secure, transparent, and tamper-proof transactions without intermediaries.

**Smart Contracts:** Self-executing contracts with the terms of the agreement directly written into code, enhancing transparency and efficiency.



pronounced as



letter & written with



i am double, i am single

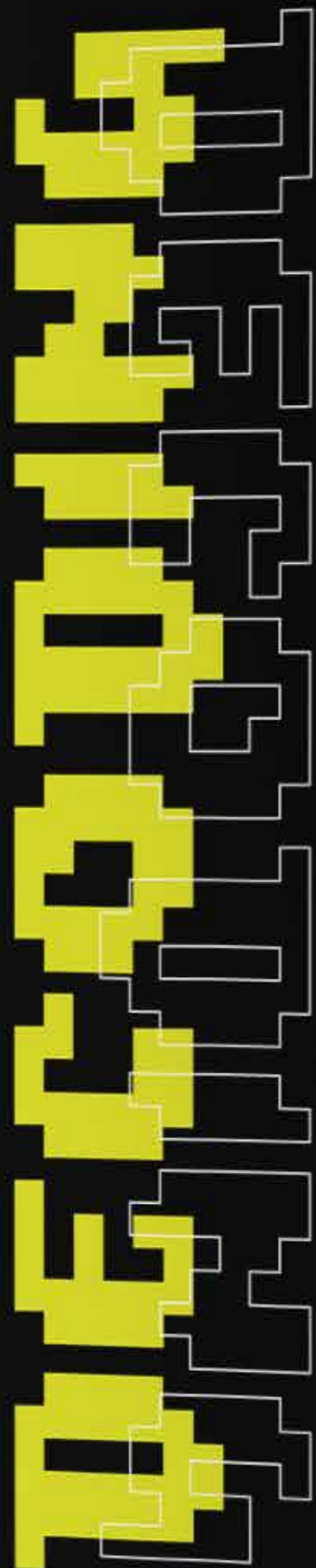


both ends, and the same either way.



can you





## tools & techniques

## ခရစ်တိုဘယ် ဂဲဇာ့ဒ်နီယံ တဲးစီဟ်နီယံ

### 1. Frequency Analysis

Description: Analyzes the frequency of letters or symbols in the ciphertext.

Application: Effective for substitution ciphers like the Caesar Cipher.

Example: In English, the letter 'E' is the most common letter, so if a ciphertext has a high frequency of a particular letter, it might correspond to 'E'.

### 2. Xzgxynyzynts Hnumjw ljhtins!

Yjhmsnvzjx:

Hfjxfw Hnumjw: Ywd fqg utxxngaj xmnkyx (gwzyj ktwhj).

Anljsèwj Hnumjw: Zxj f Anljsèwj xvzfwj tw f pstbs uqfnsyjcy fyyfhp. \*

### 3. Transposition Cipher Techniques

Rail Fence Cipher: Write the ciphertext in a zigzag pattern and read it off row by row.

Columnar Transposition: Rearrange the ciphertext into columns based on a keyword or key phrase.

\* decode using ceasar cipher - alphabets shifted by 5.



### 1. Known Plaintext Attack

**Description:** Uses a known plaintext-ciphertext pair to deduce the key.

**Application:** Effective against symmetric key ciphers when some plaintext is known.

### 2. Chosen Plaintext Attack

**Description:** Encrypts chosen plaintexts to obtain corresponding ciphertexts, aiding in key recovery.

**Application:** Useful against encryption algorithms with weak keys or implementations.

uodn.  
-yod

### 3. Brute Force Attack

**Description:** Try all possible keys until the correct one is found.

**Consideration:** Computationally intensive, suitable for weak keys or short key lengths.

uodn.  
-yod

uodn.  
-yod

### 1. Tsqnsj ljhtijwx \*

**Tools:** Websites like [dcode.fr](http://dcode.fr), [cryptii.com](http://cryptii.com), and [boxentriq.com](http://boxentriq.com).

**Features:** Support for various ciphers, including Caesar, Vigenère, and more complex algorithms.

### 2. Xtkybfwj fsi Fuux \*

**Applications:** Tools like [CryptoAnalyzer](#), [Cryptool](#), and [John the Ripper](#).

**Features:** Advanced features for cryptanalysis, brute force attacks, and code breaking.

### 3. Uwtlwfrnsl Qngwfwjnx \*

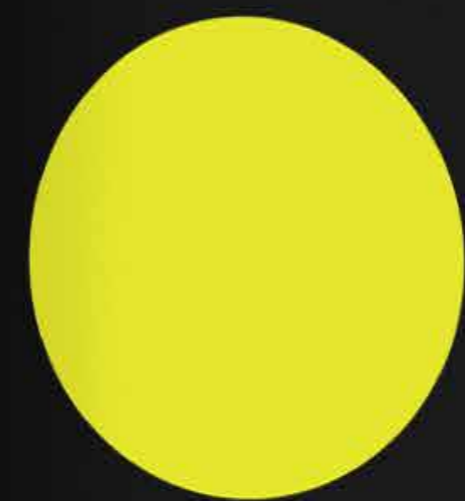
**Libraries:**

Python: [pycryptodome](#), [Crypto](#), [hashlib](#).

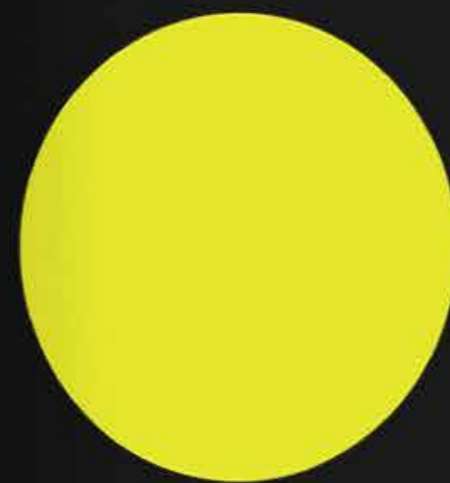
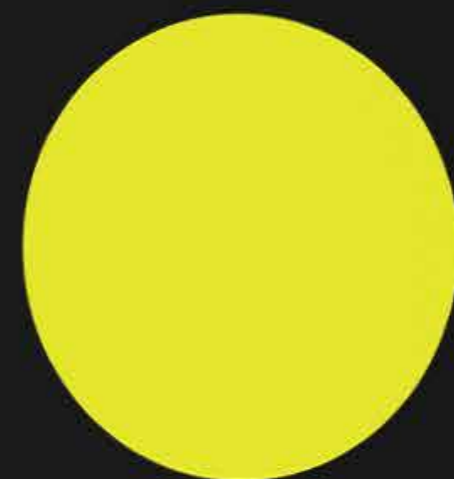
JavaScript: [crypto-js](#).

**Usage:** Write scripts to automate decryption processes and perform cryptographic analysis.

\* decode using caesar cipher - alphabets shifted by 5.



FUN  
FACTS



## Specialized Decoding Tools

### 1. Decoding Software

**Examples:**

**CyberChef:** A web tool for encryption, encoding, compression, and data analysis.

**Kali Linux Tools:** Includes various cryptographic tools like john, hashcat, and aircrack-ng.

### 2. Hardware Tools

**Examples:**

**Raspberry Pi with GPIO and custom scripts.**

**Custom hardware devices designed for specific decryption tasks.**





# Codebreakers of Cryptography

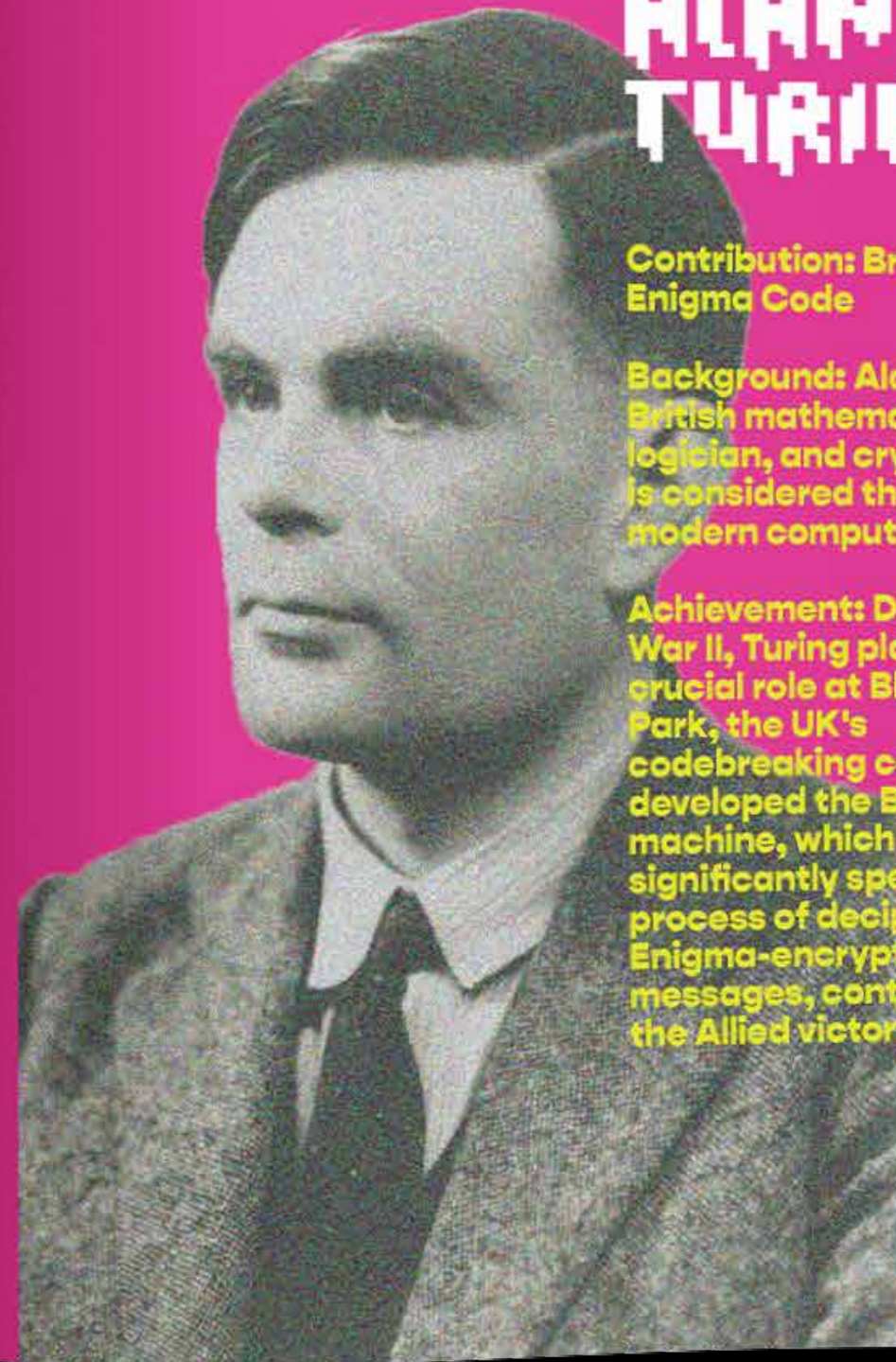
06

## ALAN TURING

**Contribution:** Breaking the Enigma Code

**Background:** Alan Turing, a British mathematician, logician, and cryptanalyst, is considered the father of modern computing.

**Achievements:** During World War II, Turing played a crucial role at Bletchley Park, the UK's codebreaking center. He developed the Bombe machine, which significantly sped up the process of deciphering Enigma-encrypted messages, contributing to the Allied victory.



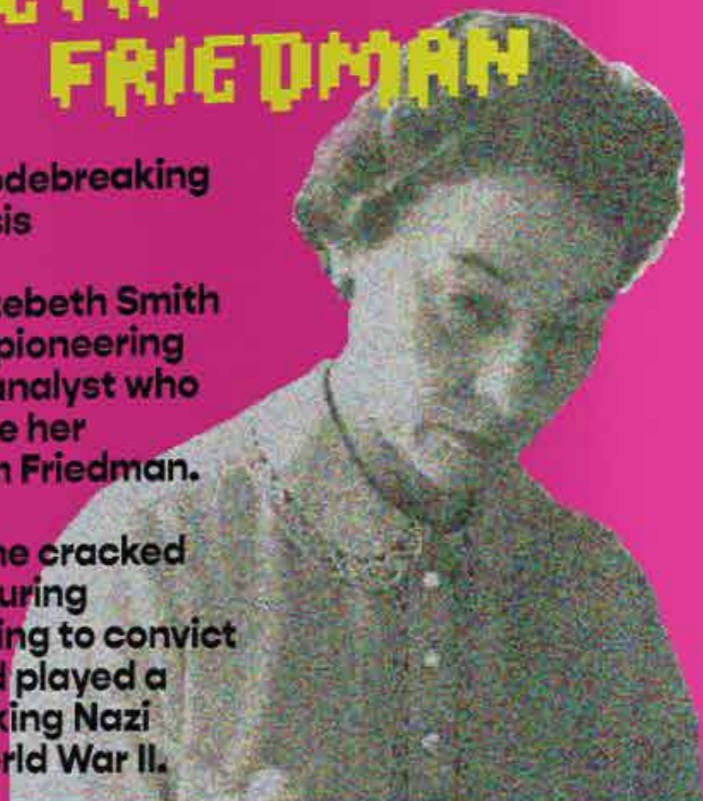


# ELIZABETH SMITH FRIEDMAN

**Contribution:** Codebreaking and Cryptanalysis

**Background:** Elizebeth Smith Friedman was a pioneering American cryptanalyst who worked alongside her husband, William Friedman.

**Achievement:** She cracked multiple codes during Prohibition, helping to convict rum runners, and played a vital role in breaking Nazi codes during World War II.



# AGNES MEYER DRISCOLL

**Contribution:** Cryptanalyst for the U.S. Navy

**Background:** An American cryptanalyst who worked for the U.S. Navy from World War I through World War II.

**Achievement:** She was instrumental in breaking several Japanese naval codes, which significantly aided the U.S. in the Pacific Theater during World War II.



You'll find me in

W:TL'TT

:.TzT

W.TJ

3'.nJz:T

J.z'TJ &

.T.J'.J

V<□□^

or

□□<>□□

But never in

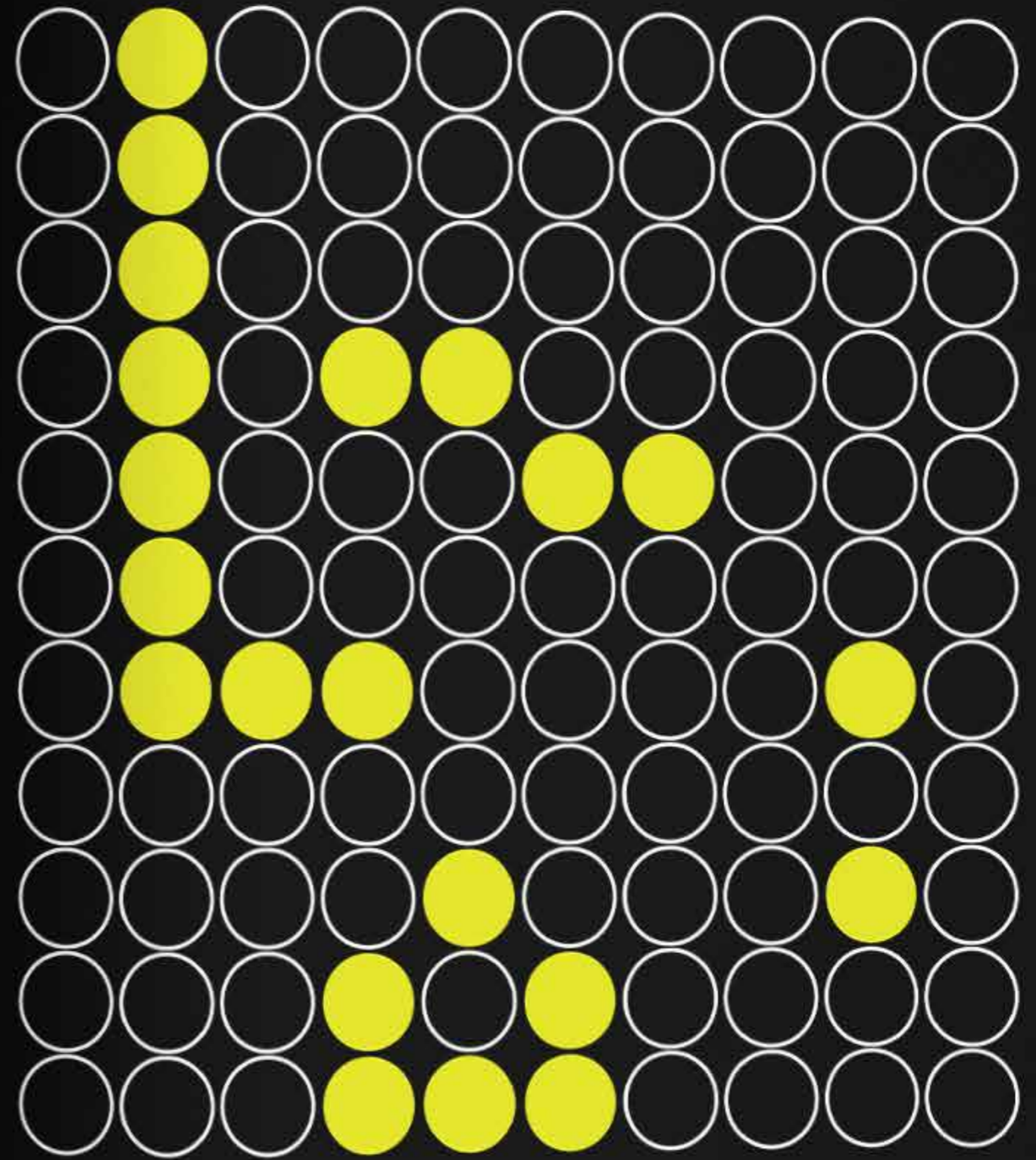


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