

A dark grey line starts from the left edge of the slide, extends horizontally to the right, and then diagonally down to a solid dark grey circle.

# **ASSIGNMENT**

**CRYPTOGRAPHY & NETWORK SECURITY**

**STEGANOGRAPHY**

A large blue triangle on the right side of the slide, pointing left towards the text. Below it, a dark blue line forms a mountain-like shape.

# MEMBERS

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TRẦN TRUNG HIẾU- 1952684  
VŨ TIẾN GIANG - 1952240



# CONTENT INDEX



DEFINITION OF  
STEGANOGRAPHY

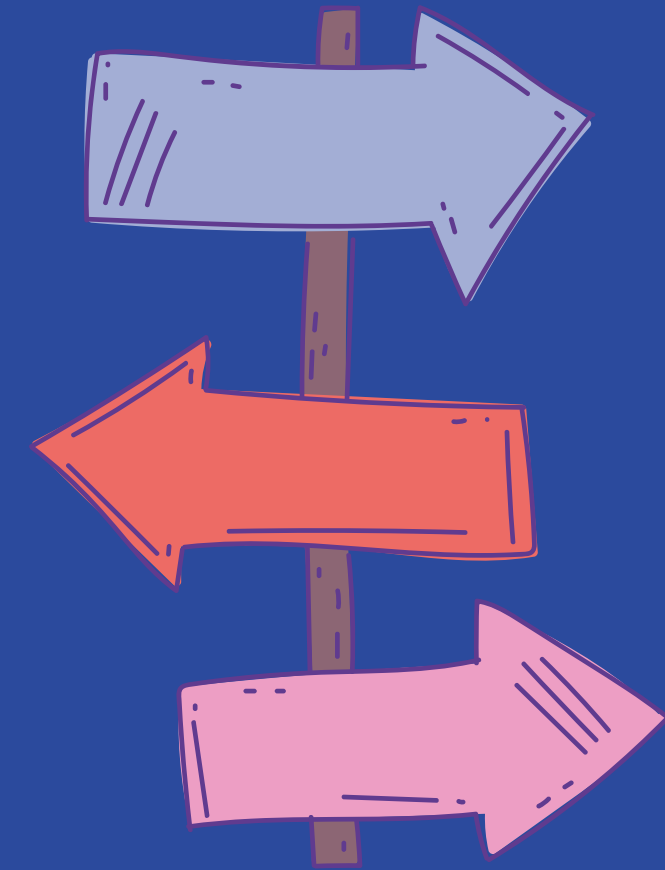
EXAMPLES OF  
STEGANOGRAPHY

ADVANTAGES OF  
STEGANOGRAPHY

OUR  
DEMONSTRATION

**1**

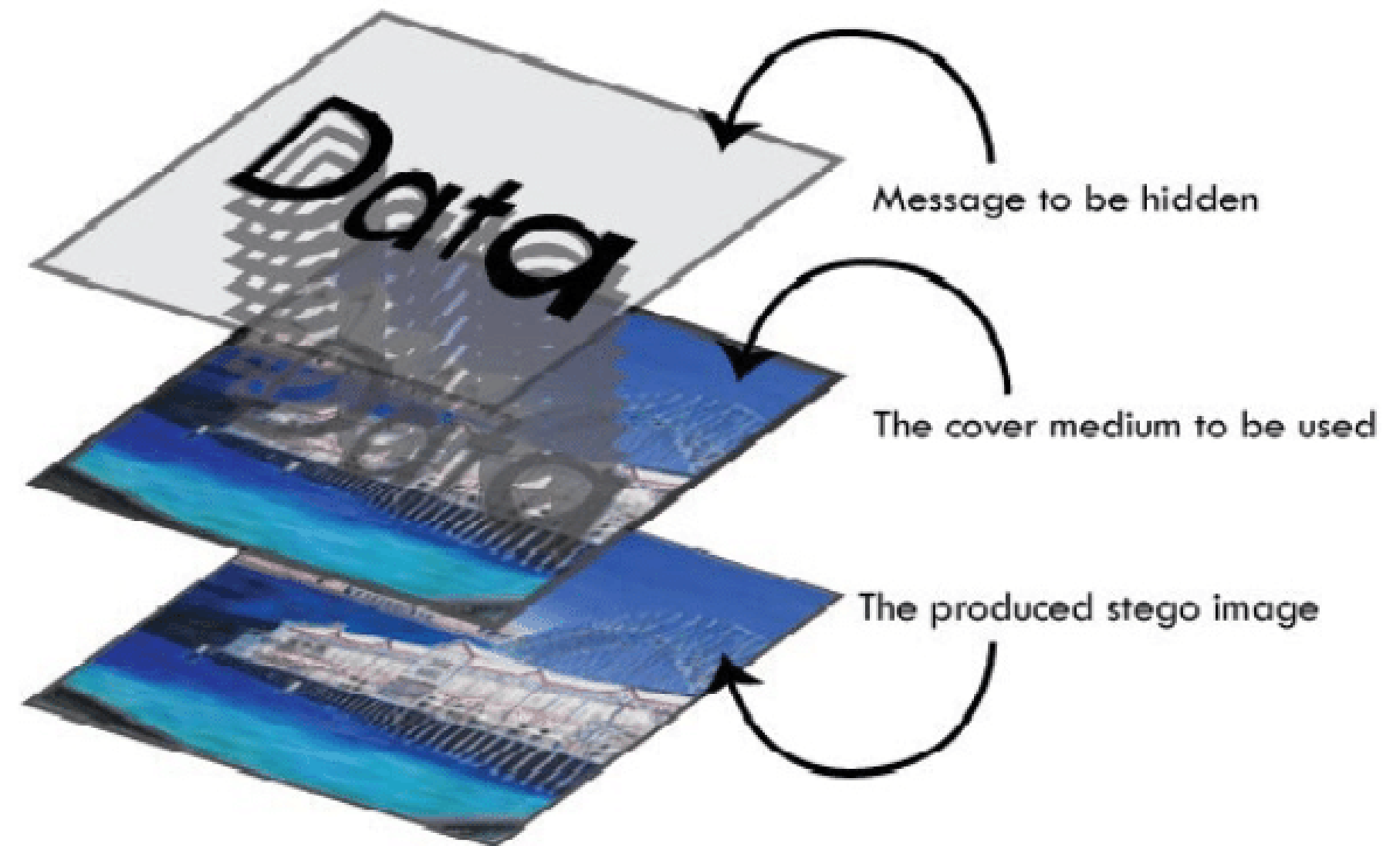
# **DEFINITION**



# WHAT IS STEGANOGRAPHY ?

STEGANOGRAPHY IS A TECHNIQUE FOR HIDING SECRET INFORMATION BY ENCLOSING IT IN A REGULAR FILES.

STEGANOGRAPHY DERIVES FROM THE GREEK WORD STEGANOS, MEANING COVERED OR SECRET, AND GRAPHY (WRITING OR DRAWING).



# TYPES OF STEGANOGRAPHY

- 1 TEXT STEGANOGRAPHY
- 2 IMAGE STEGANOGRAPHY
- 3 AUDIO STEGANOGRAPHY
- 4 VIDEO STEGANOGRAPHY
- 5 NETWORK & PROTOCOL STEGANOGRAPHY

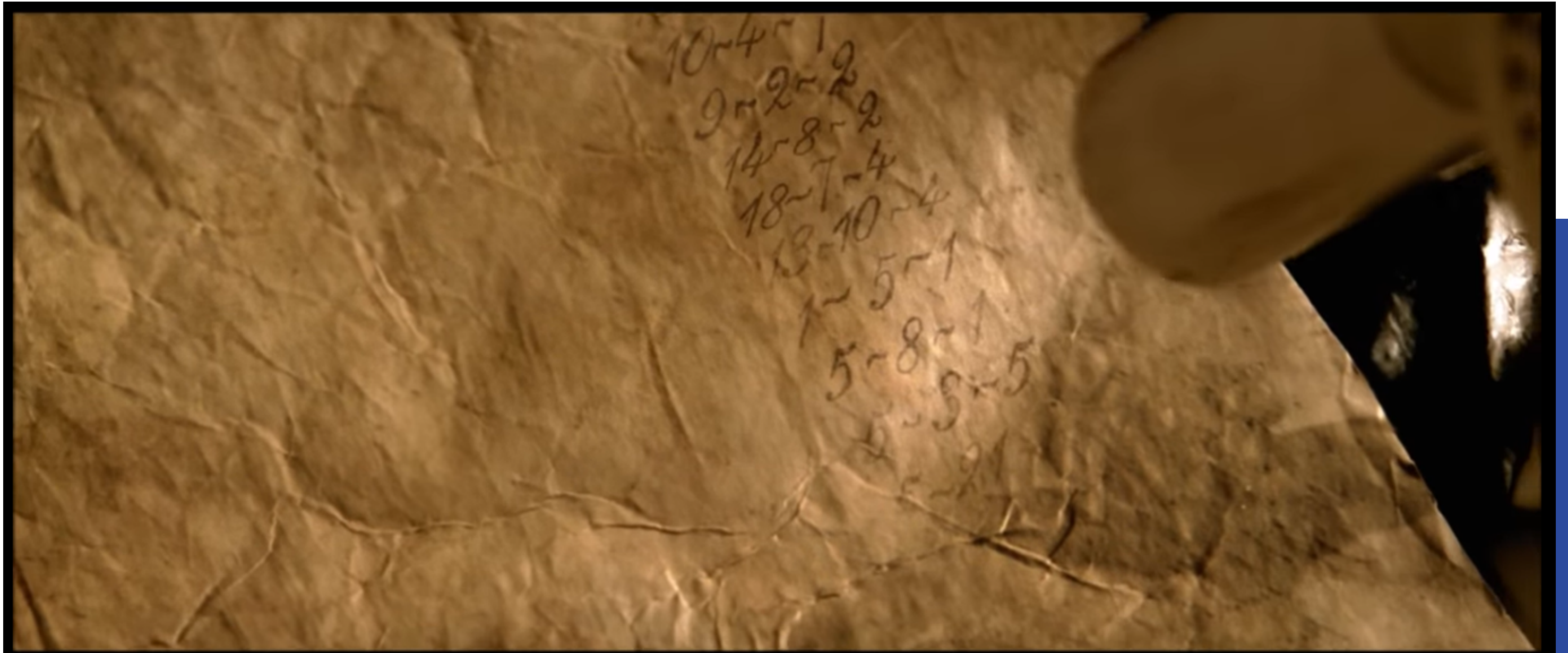
2

# EXAMPLES



# INVISIBLE INK

**A SUBSTANCE USED FOR WRITING, WHICH IS INVISIBLE EITHER ON APPLICATION AND CAN LATER BE MADE VISIBLE BY SOME MEANS, SUCH AS HEAT OR ULTRAVIOLET LIGHT.**





# BACKWARD MASKING

**A METHOD OF RECORDING A MESSAGE  
BACKWARD ONTO  
A TRACK THAT IS INTENDED TO BE  
PLAYED FORWARD.**





# EMBEDDING TEXT IN A PICTURE

THIS METHOD MODIFIES THE IMAGE PIXELS  
FOR HIDING SECRET INFORMATION.



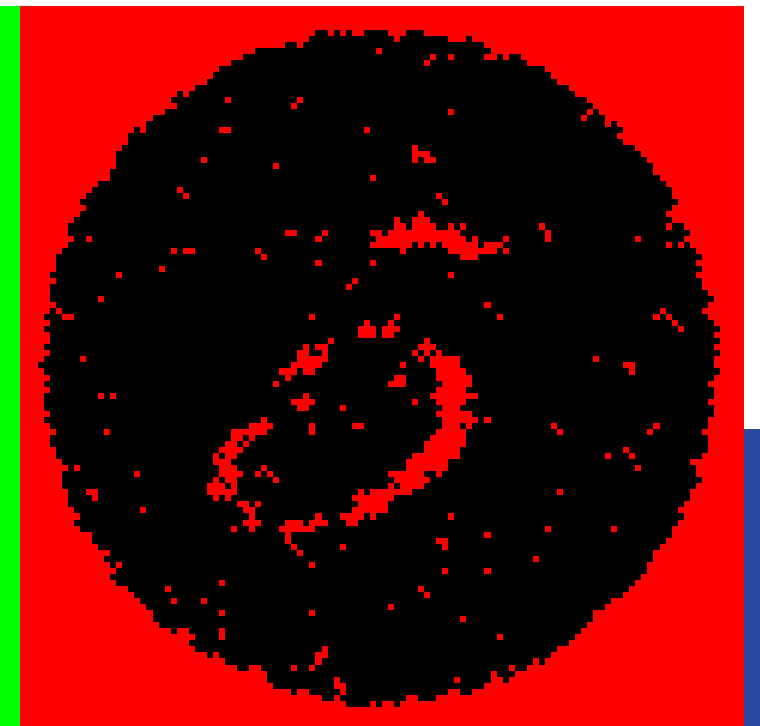
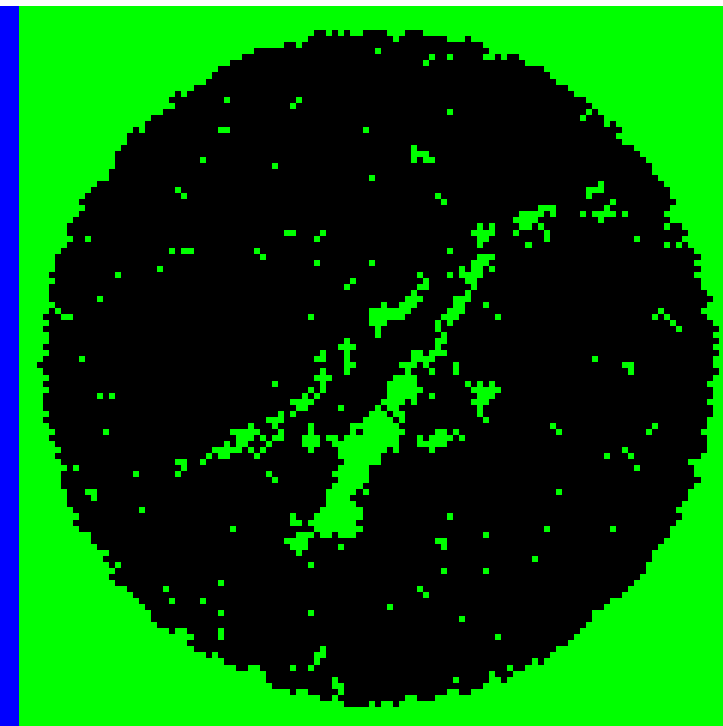
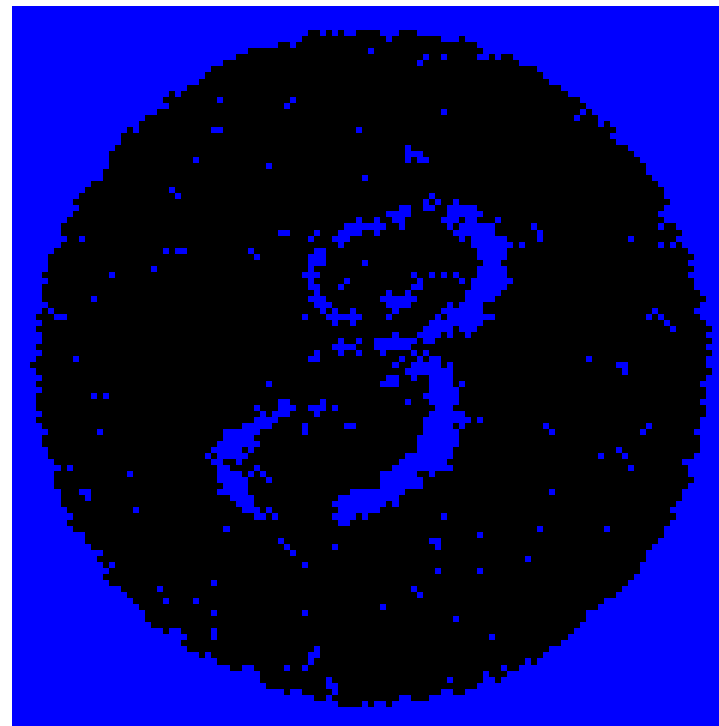
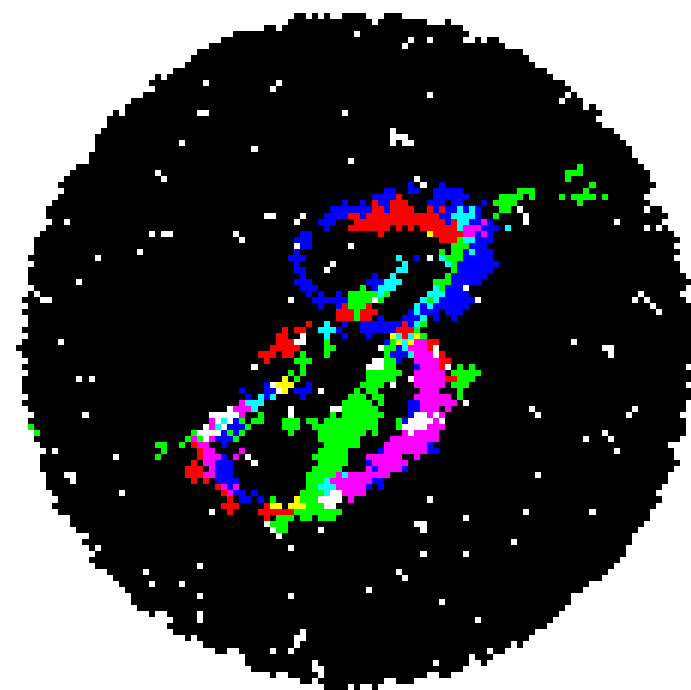
No Message



Attack at midnight

# USE LIGHTS TO REVEAL THE MESSAGES

TO SEE THE HIDDEN MESSAGES IN THIS METHOD,  
PEOPLE NEED TO USE DIFFERENT LIGHTS  
SUCH AS GREEN, BLUE, OR RED LIGHT.



**3**

# **ADVANTAGES**





# USES OF STEGANOGRAPHY

- 1 A METHOD TO HIDE A SECRET COMMUNICATION
- 2 MAINTAIN COMMUNICATION SECURITY
- 3 KEYS ARE OPTIONAL BUT CAN BOOSTS SECURITY
- 4 OUTSIDERS CAN'T SEE THE DATA INSIDE
- 5 DOESN'T CHANGE THE DATA'S GENERAL ORDER

## RISK

ANYONE CAN USE DATA ONCE UNLOCKED



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**DEMONSTRATE**



**THANKS YOU FOR LISTENING**

Danke  
schön