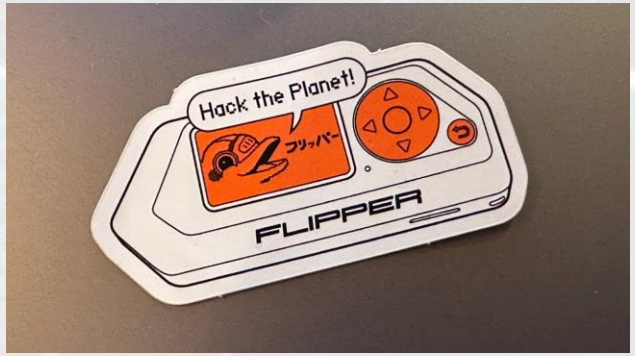
Flipper Zero



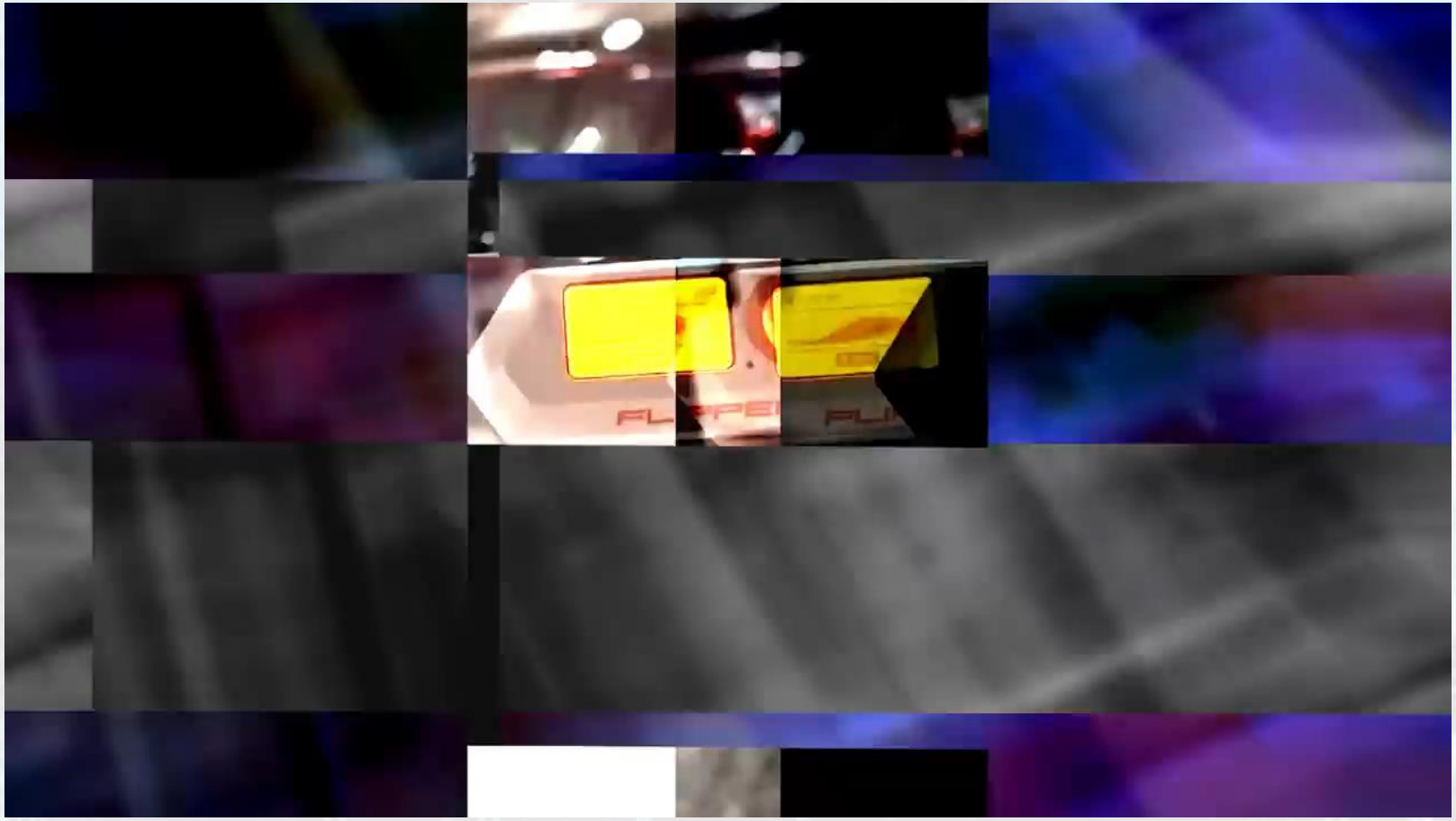
WHAT IS FLIPPER ZERO

What is Flipper Zero

- **It Looks Like A Kid's Toy – All Plastic and Brightly Colored…but**
  - Built-in infrared transceiver that can both capture and transmit IR codes to control things like TVs
  - There's a sub-GHz wireless antenna that can again capture and transmit wireless codes to operate wireless devices and access control systems
  - It can read, store, and emulate EM-4100 and HID Prox RFID cards
  - It can read, write, store, and emulate NFC tags
  - 1-Wire connector that can read and emulate iButton (aka DS1990A, CYFRAL, Touch Memory or Dallas key) contact keys
  - GPIO connectors that allow the flipper Zero to connect to other gadgets in the real world

WHAT CAN FLIPPER ZERO DO

Demonstration



How does Flipper Zero Work

Flipper Zero contains a few different antennas. These help it capture, store, clone and emulate wireless signals. It can interact with several signal types:

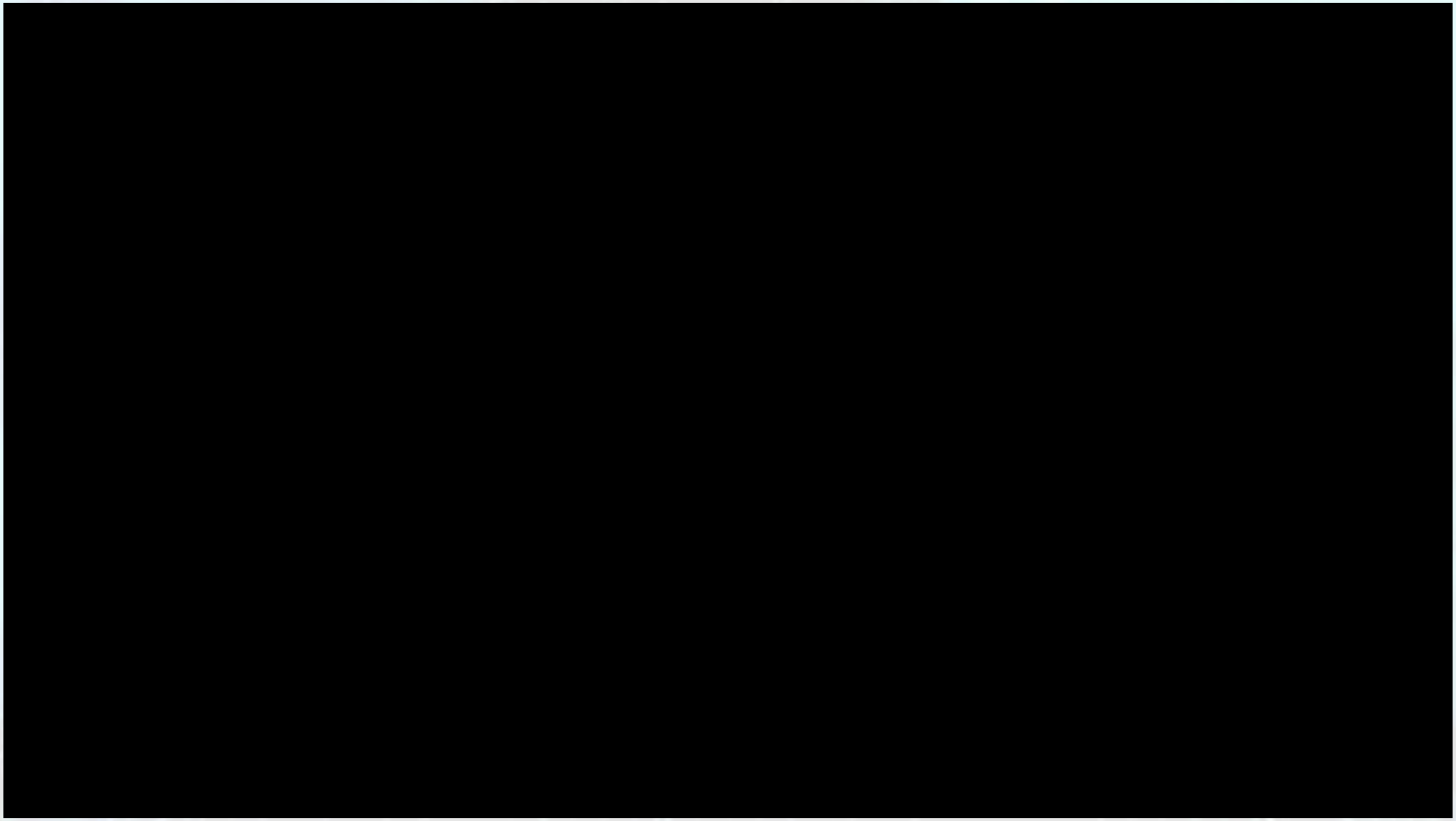
- Near field communication (NFC). Bank cards and building access cards use NFC signals.
- 125kHz RFID. Older proximity cards and animal microchips use this frequency.
- Infrared. Many remotes use infrared signals.
- Sub-1 GHz. Garage door remotes and remote keyless systems use Sub-1 GHz frequencies to communicate.

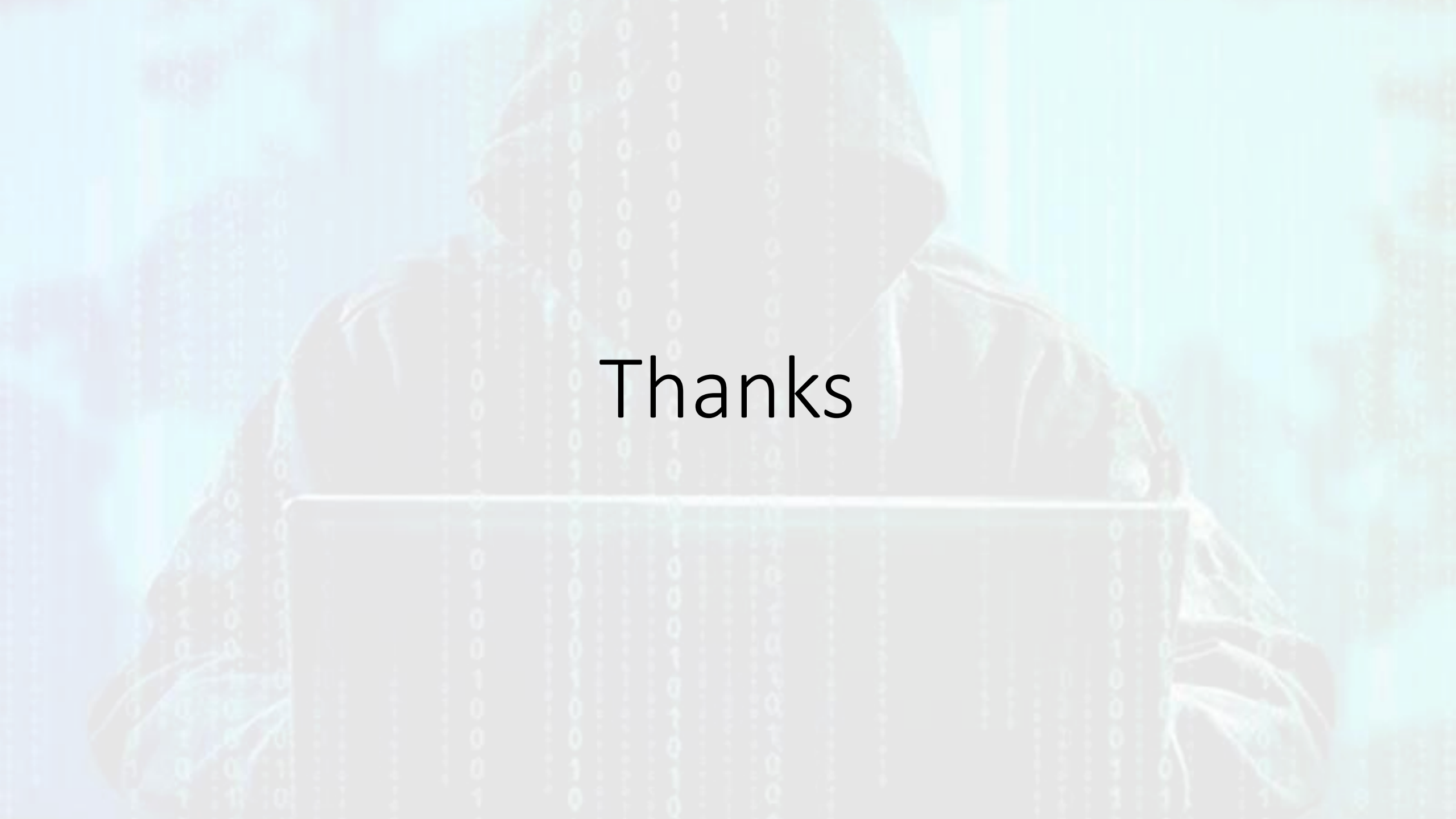
Flipper Zero Features the Following

- 18 general purpose input/output connectors that connect it to other hardware devices.
- A USB 2.0 port, type C, to connect with computers.
- iButton 1-Wire support. iButtons are often used in asset control and tracking.
- Removable storage in the form of an SD card.
- An LCD display screen and five-button control pad.
- The FreeRTOS embedded operating system for microcontrollers.

Alternatives to Flipper Zero

- Rubber Ducky can perform BadUSB attacks and run ducky scripts
- ChameleonMini is a portable tool for NFC security analysis
- Smartphones can read and store NFC codes
- Raspberry Pi can be set up as an NFC signal reader
- The Wi-Fi Pineapple can be used for pen testing wireless networks
- John the Ripper does password-cracking attacks, like Flipper Zero does with its BadUSB function.




Thanks