



# Hash Breakdown

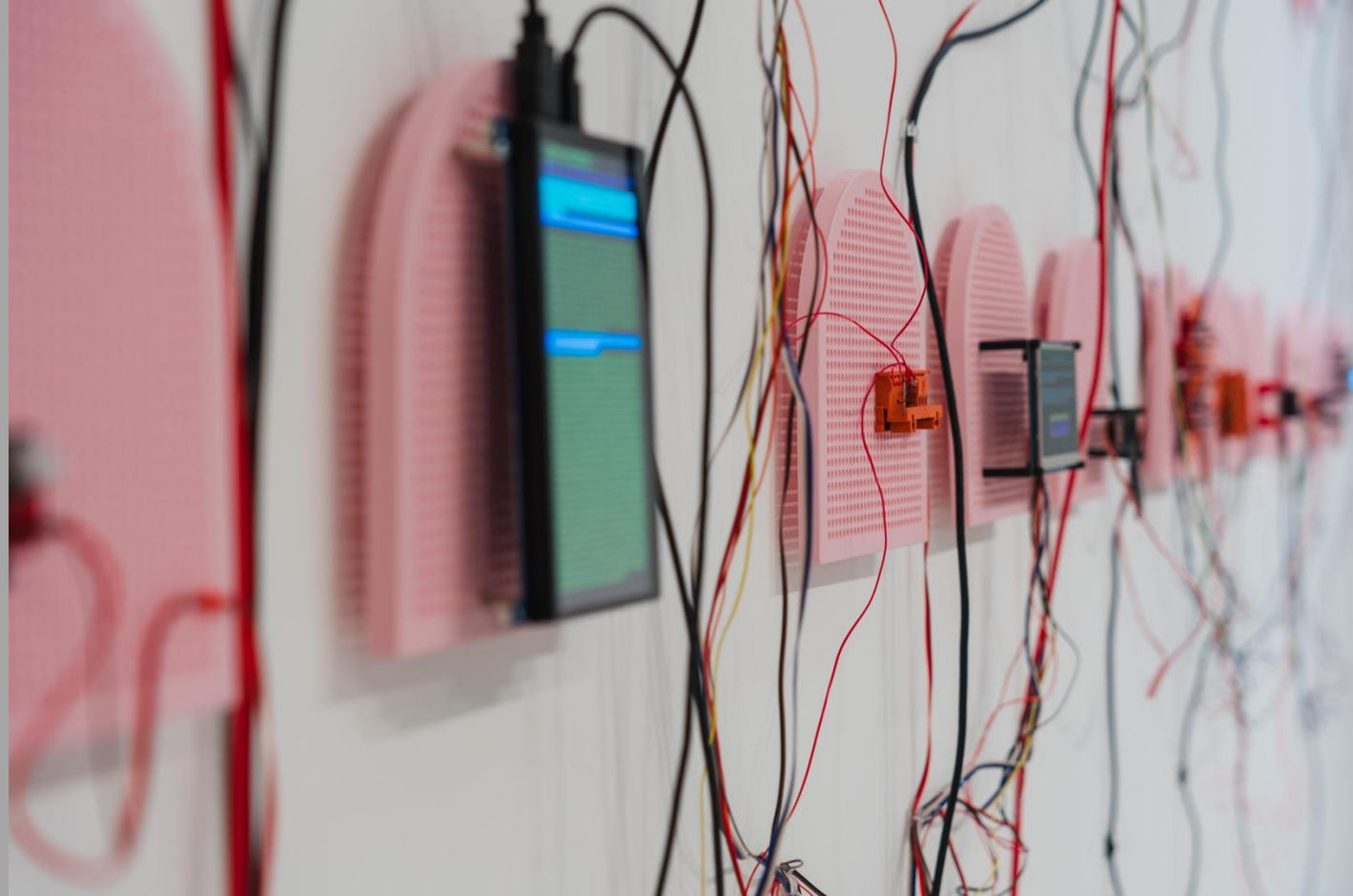
by Silvia Binda Heiserova

The background of the slide is a blurred photograph of an electronic breadboard. It features several integrated circuits, numerous jumper wires in various colors (red, black, yellow, blue), and a small digital display showing some green and blue graphical elements. The overall tone is technical and creative.

# 1 What is Hash Breakdown ?

# Critical Interface

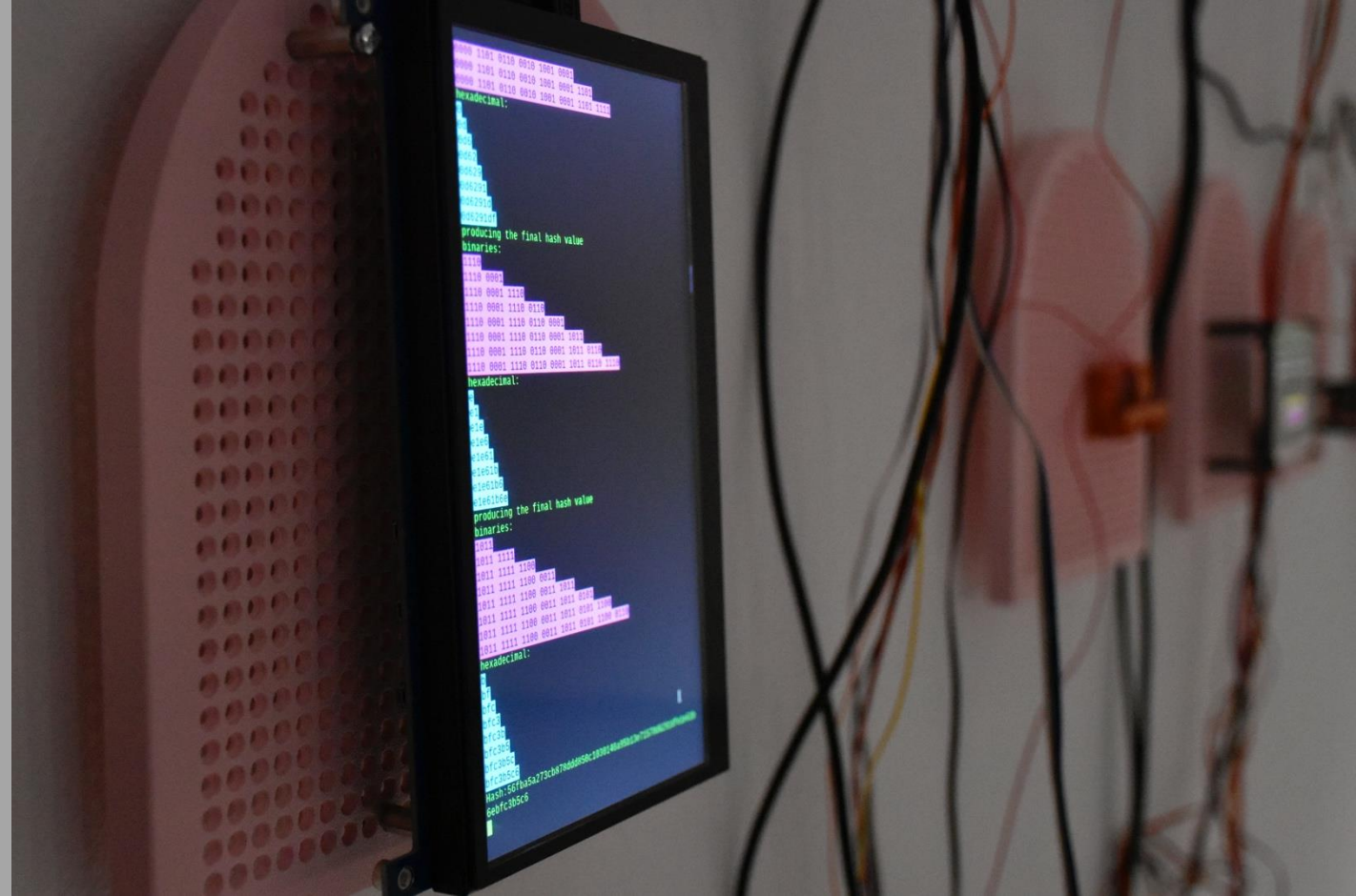
demystifying the  
SHA-256 hashing  
algorithm





# Critique

towards mystifying,  
elitist, masculine  
narratives around  
blockchain



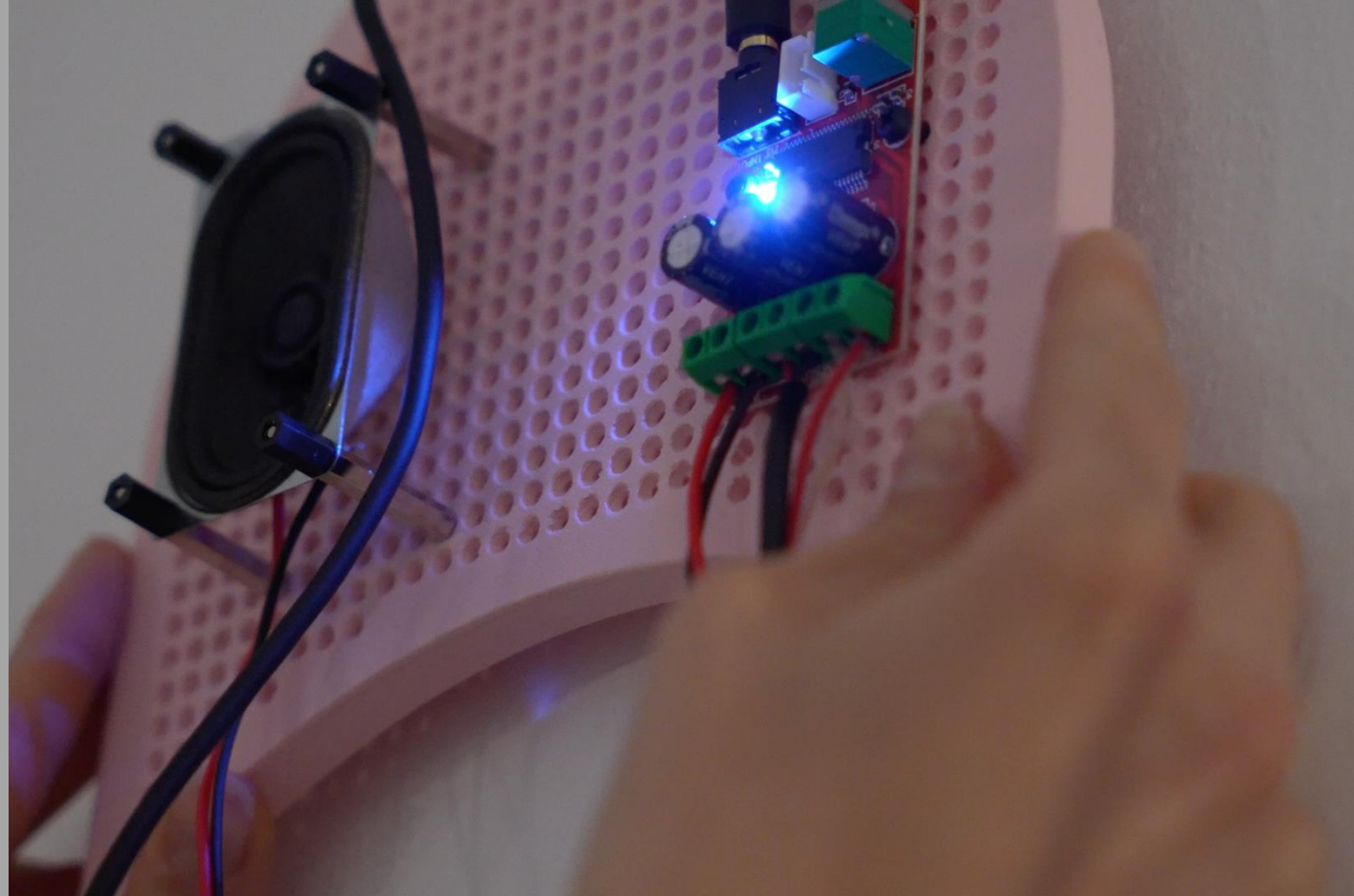
# Explanatory Process

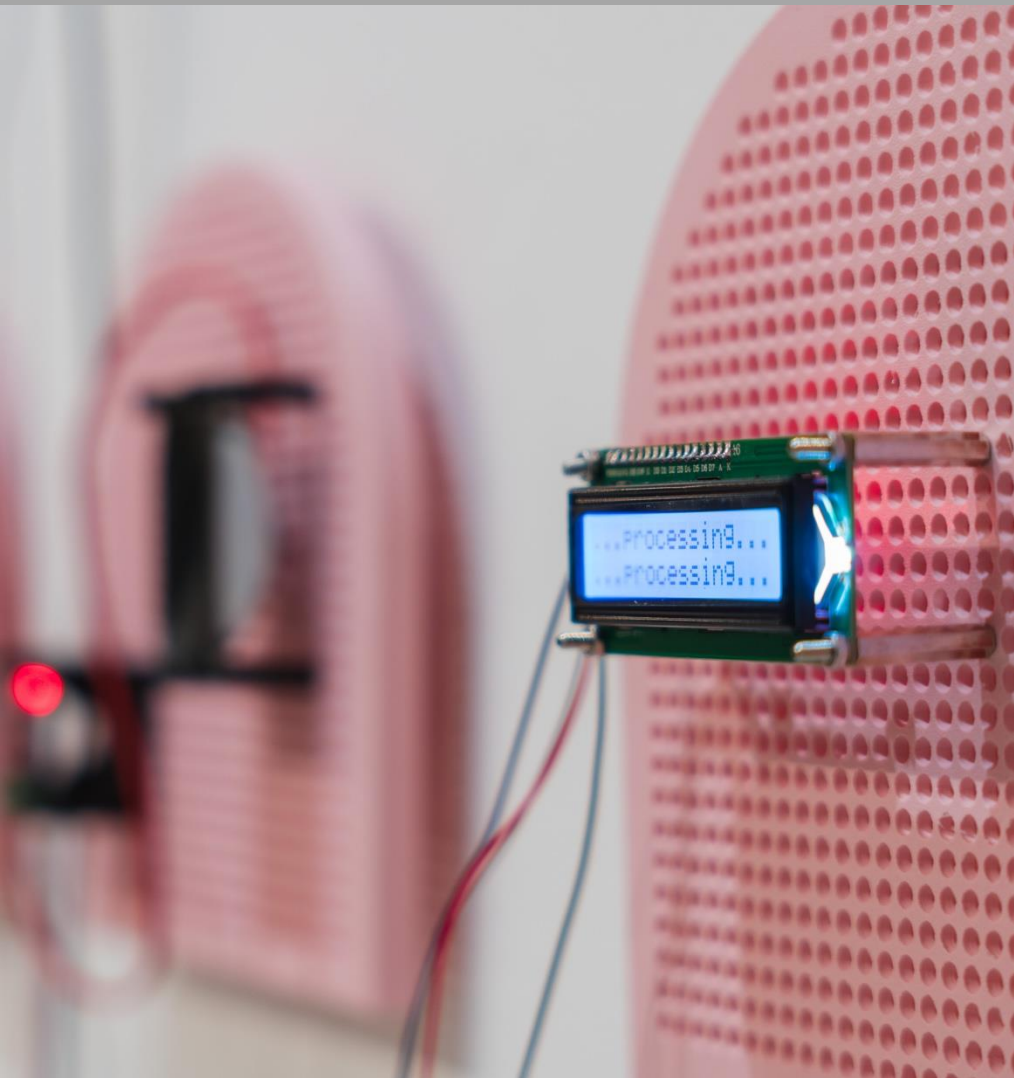
slowed-down version  
of the data conversion into  
a hash



# Material, Visual, Sonic

representation of  
SHA-256





# Autonomous System

making SHA-256  
more readable, tangible,  
comprehensible



# Open Hardware

The screenshot shows the GitHub interface for the repository 'hash\_breakdown' by user 'silviabinda'. The repository is public and has 1 star, 0 forks, and 1 branch (main). The repository description states: 'The artwork "Hash Breakdown" is a critical interface constituted by an electronic and digital ensamble of microcomputers, modules, 3D prints, sensors and codes with real-time functionality.'

The repository contains the following files and folders:

File/Folder	Last Commit	Time Ago
3D_models	Update README.md	6 months ago
codes	Update tft_esp32.ino	last month
LICENSE	LICENSE	6 months ago
README.md	README.md	6 months ago

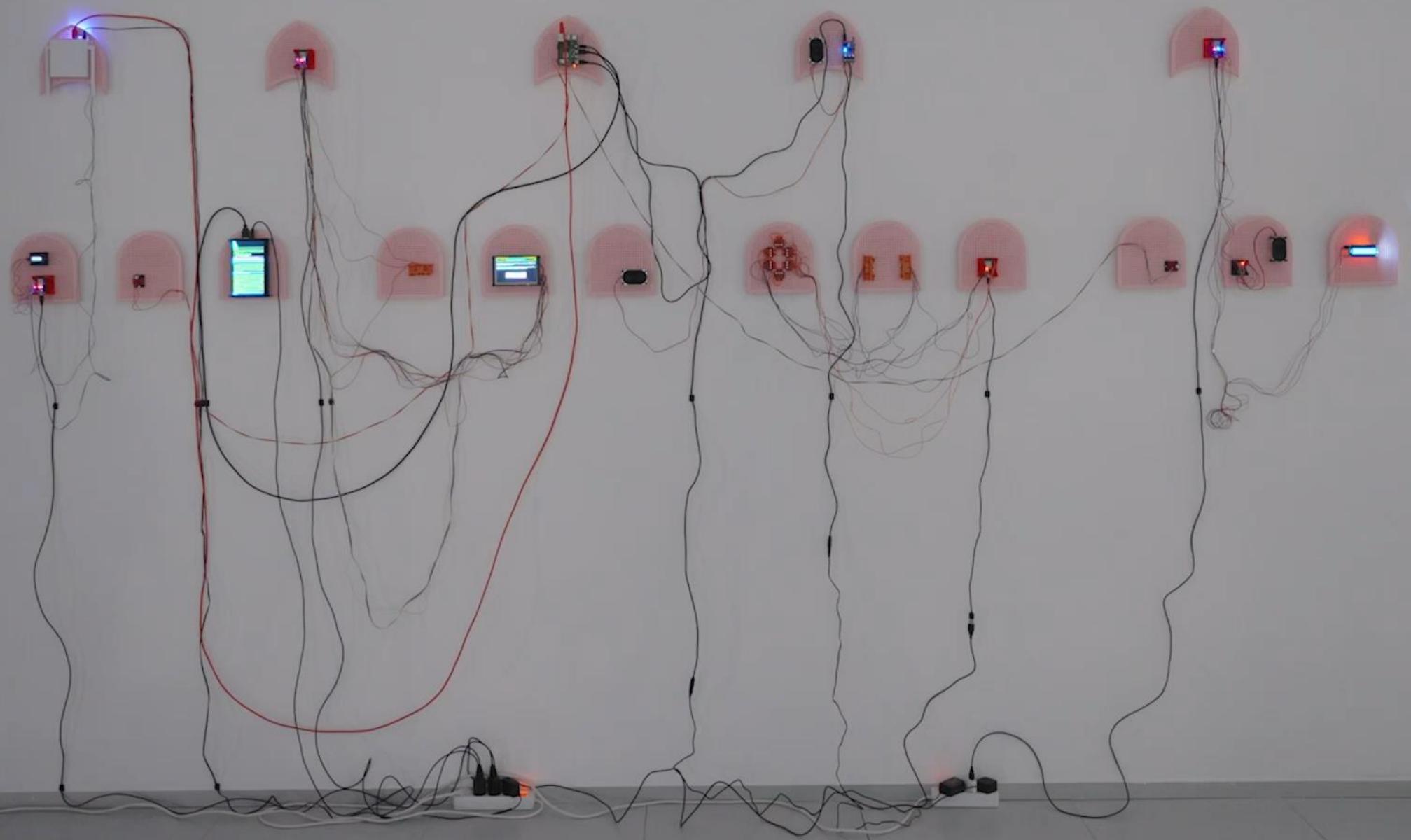
The README section is titled 'Hash Breakdown, 2024' and features a video thumbnail showing a close-up of a hand holding a small electronic device with wires connected to it.

The right sidebar shows repository statistics: 1 star, 1 watching, 0 forks, and 0 releases. It also includes links to 'Create a new release' and 'Publish your first package'.



2

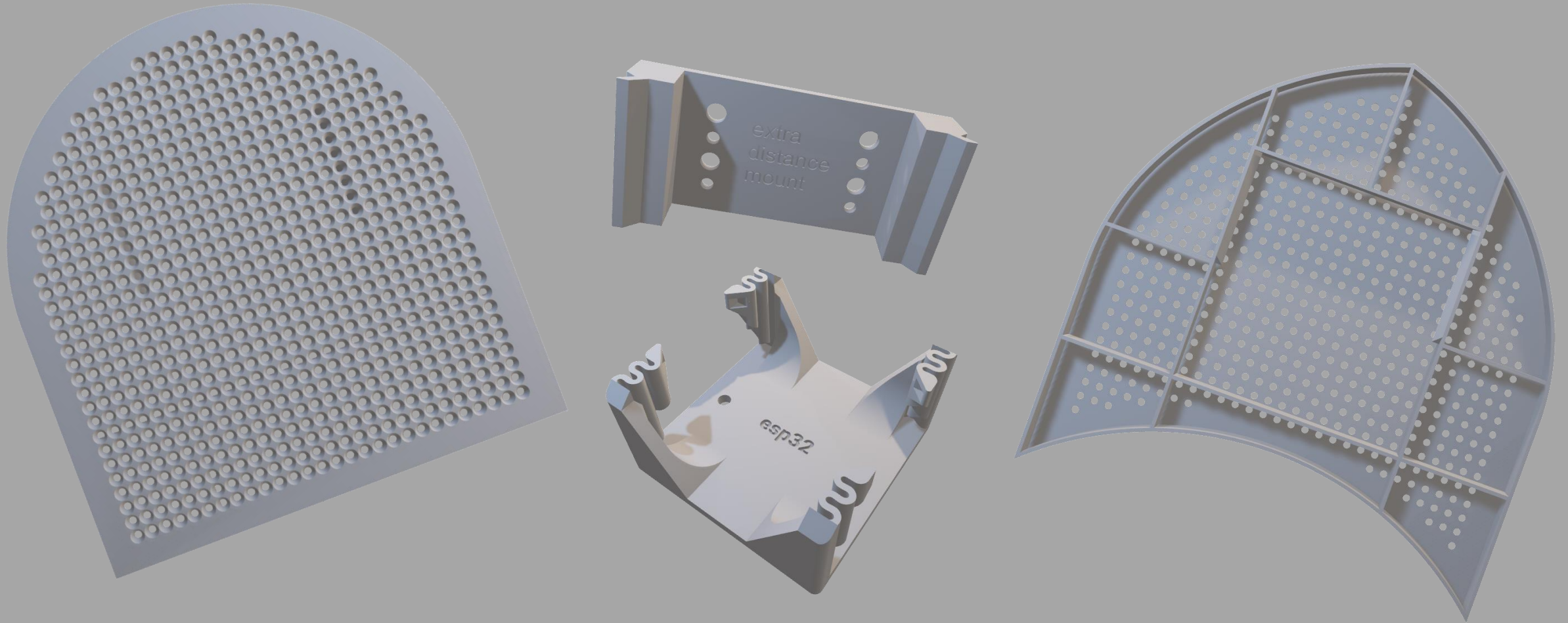
# Video Preview



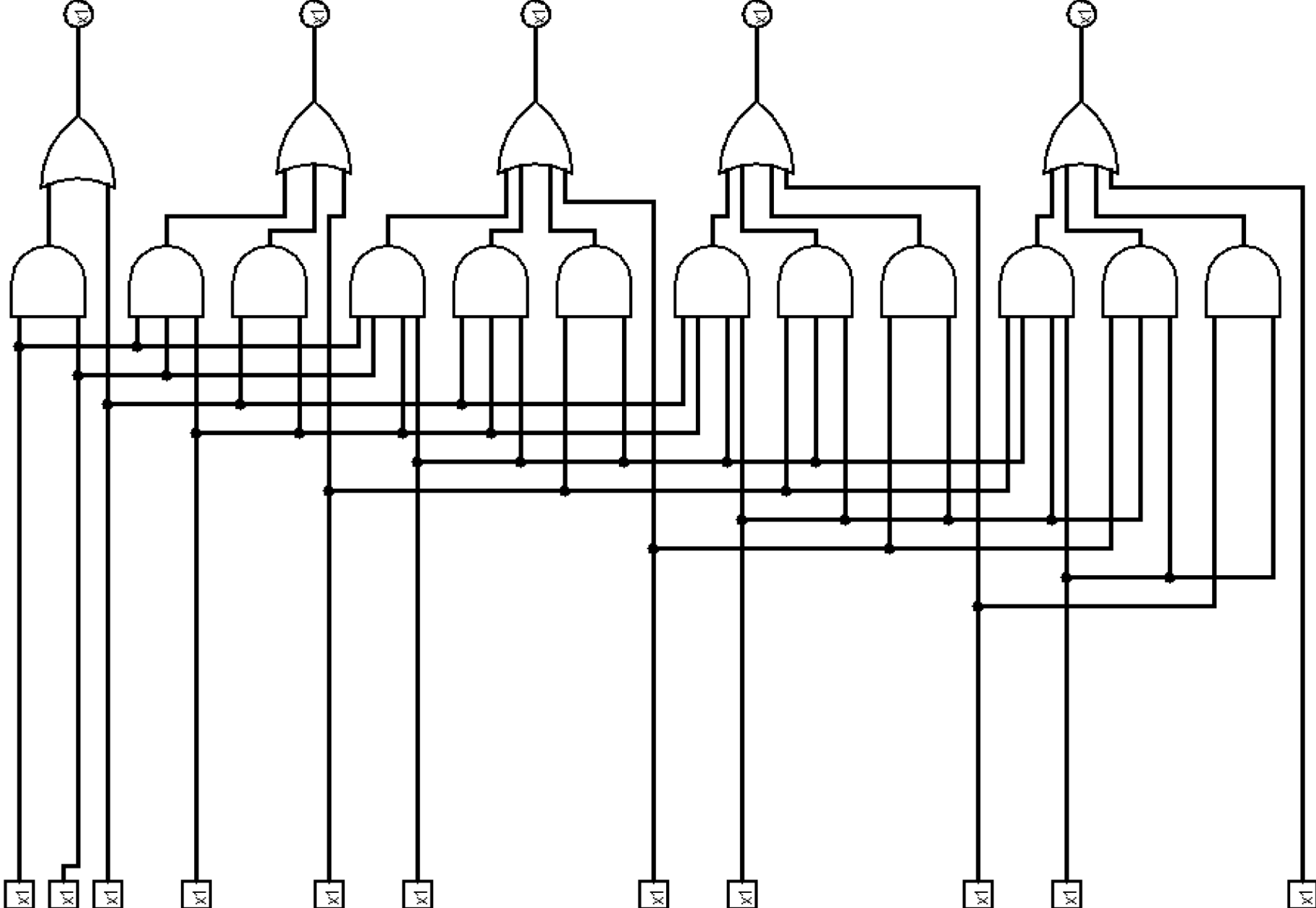
3

# Technical Aspects

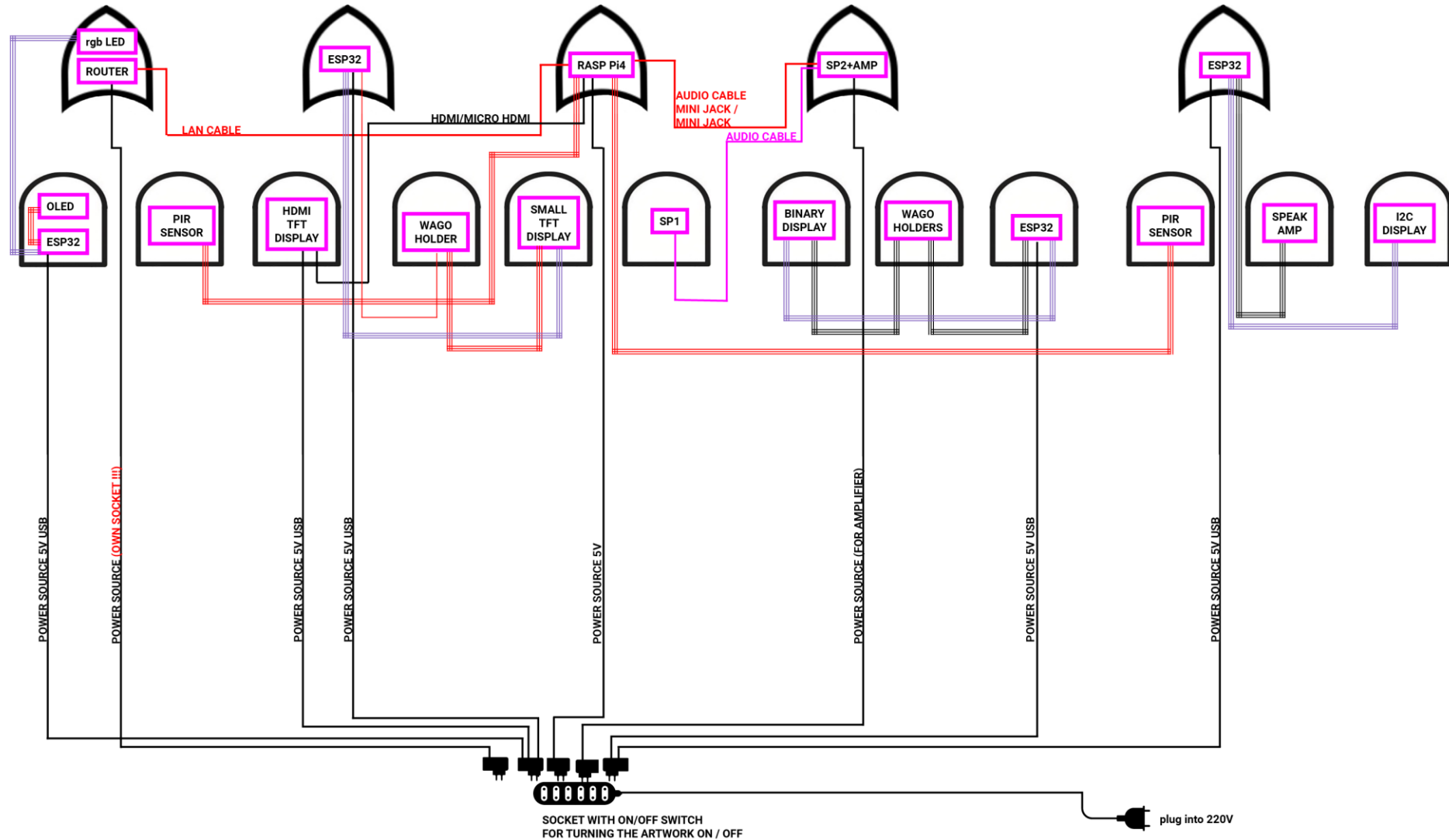
# 3D Prints



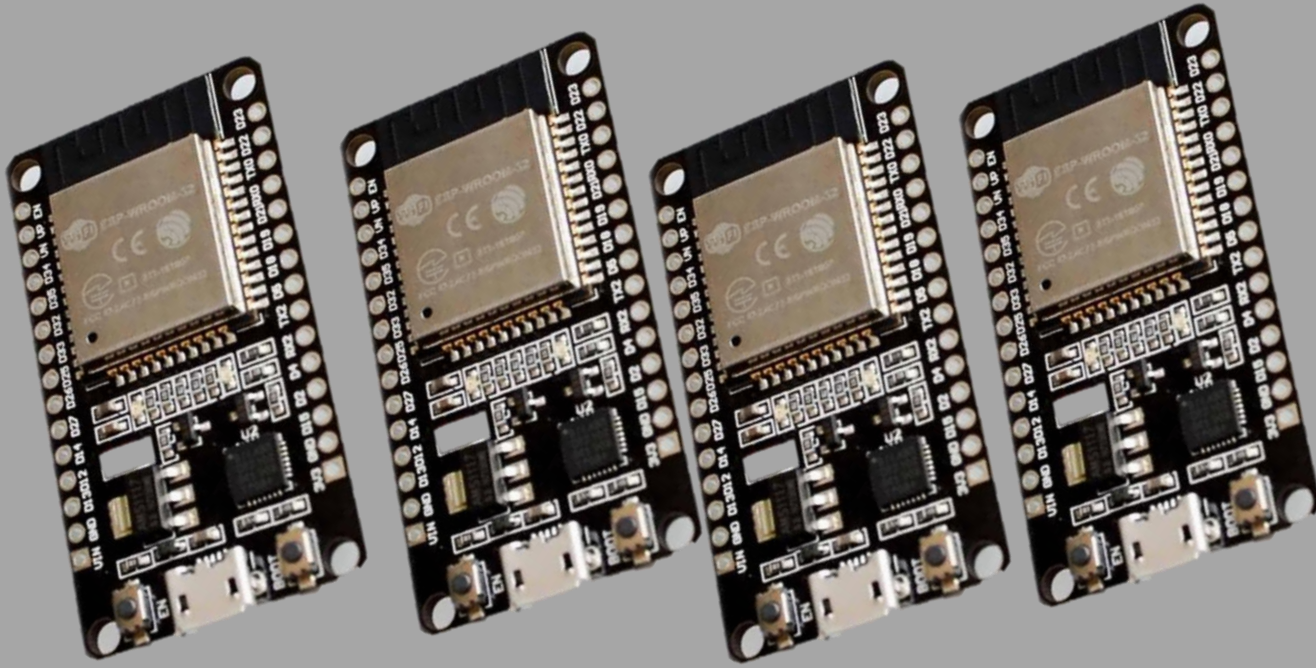




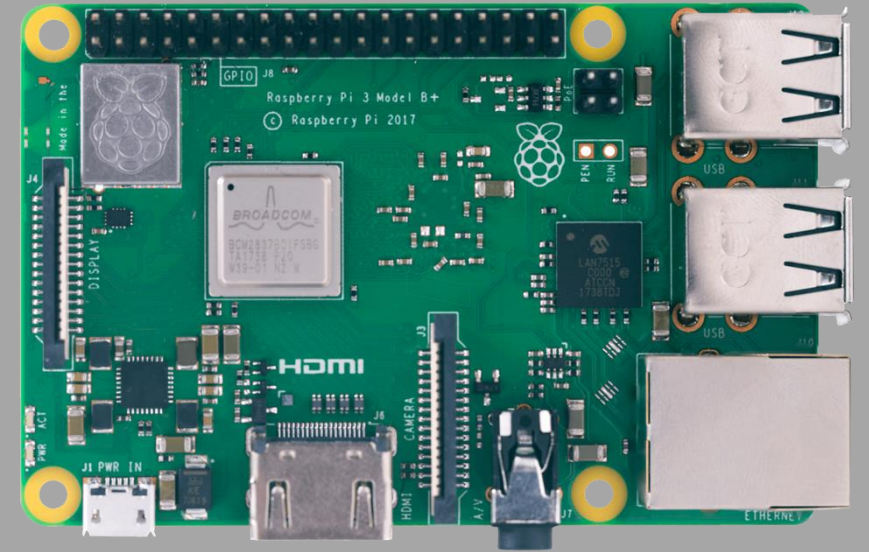
# Connection schematic



# Micro/Minicomputers



4x ESP32



Raspberry Pi 4

# Coding

## Main code (RasPi)

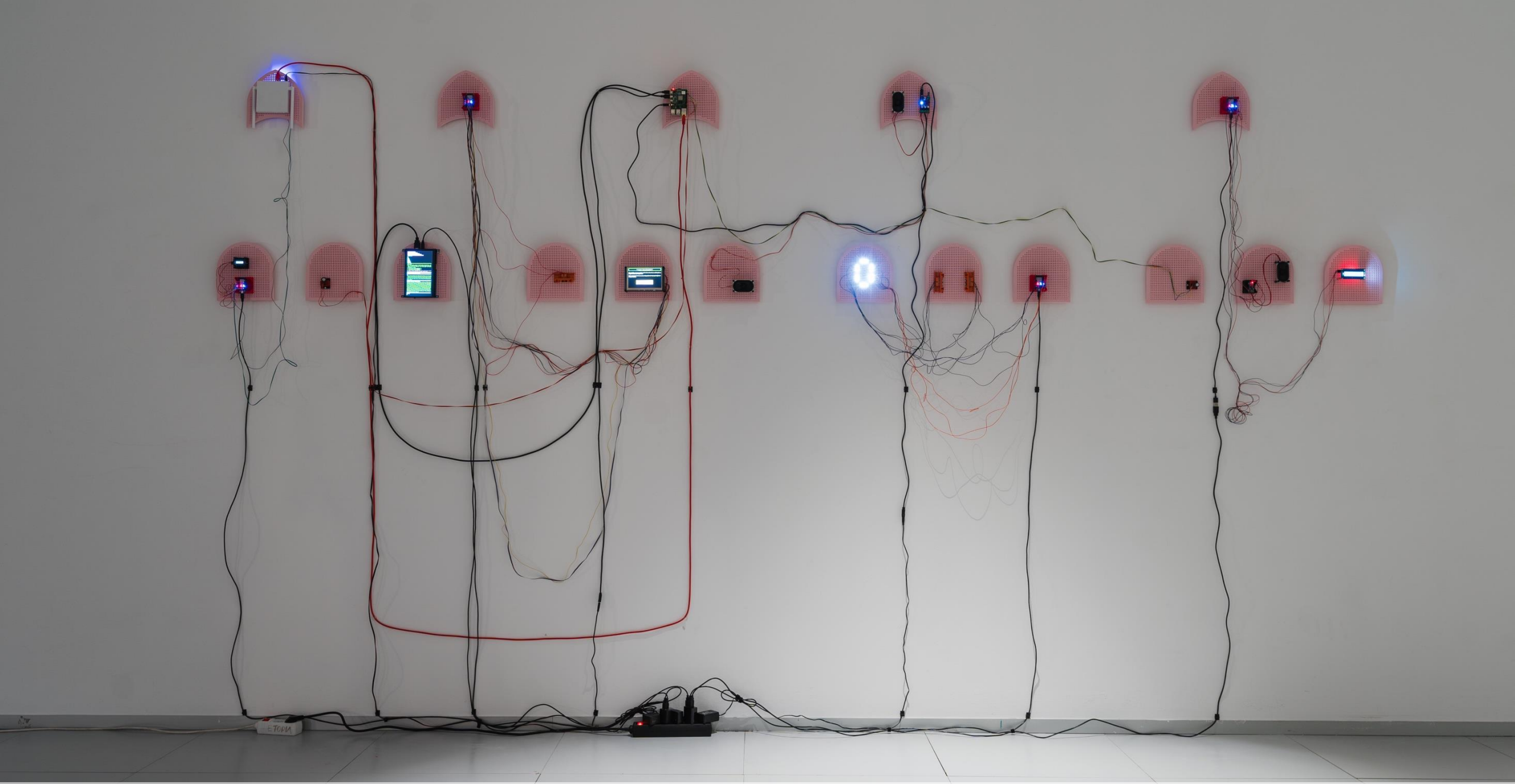
- written in Python
- Python implementation of SHA-256
- Python script for parsing data to be hashed
- Backup database
- TTS python library (real time synthesis)



# Coding

## ESP32 codes

- Python or C++ based
- Control of specific modules (amplifier, display, LEDs...)
- Receiving Data from RasPi (UDP) via offline router



# 4 Conclusion

- ➔ Blockchain as a space for critical reflection from a feminist perspective.
- ➔ Blockchain as a technology to be demystified and democratized.
- ➔ Reclaiming technology through transparency and Open Source principles

# Thank You



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