



# TEAM ISHTING

## RUBBER DUCKY PROJECT

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### Introduction

- The "Rubber Ducky" is a USB device that mimics a keyboard to run scripts quickly.
- Commonly used for ethical hacking and automating repetitive tasks.
- Our project: transformed a Raspberry Pi Pico into a Rubber Ducky USB to execute pre-written commands automatically.

### Hardware:

1. Raspberry pi pico
2. Cable wire

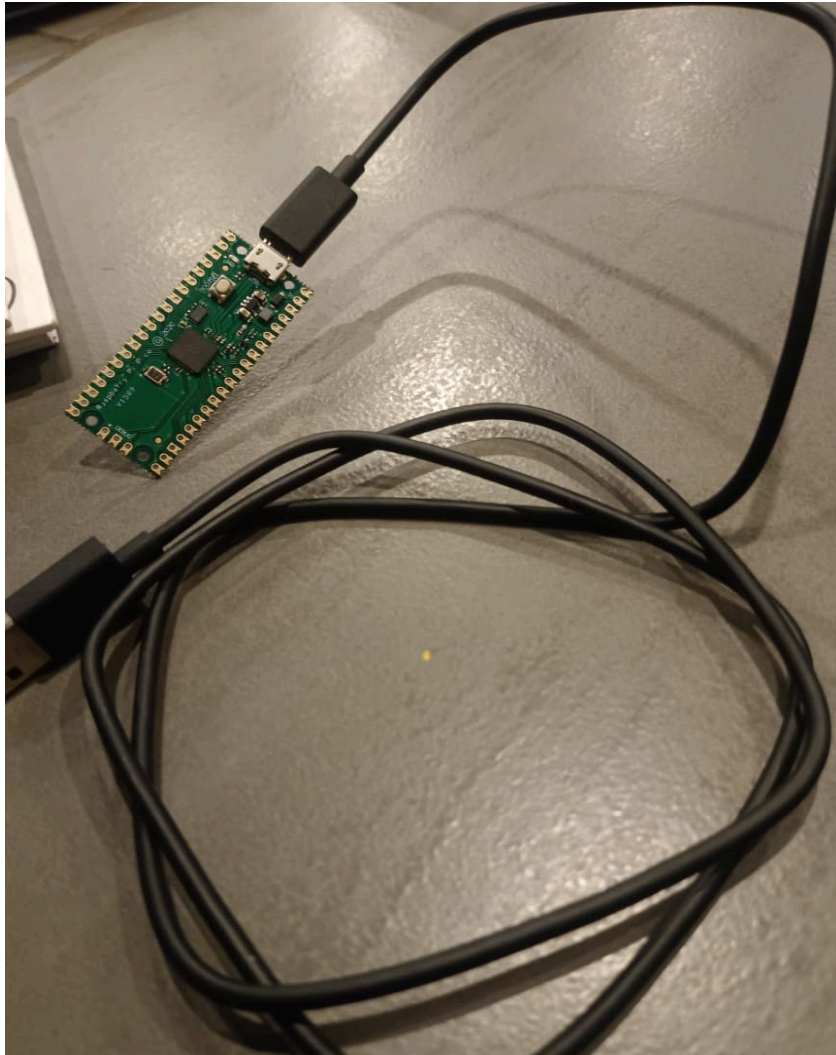
### Software:

1. Notepad
2. Sublime text
3. Libraries

### Languages used:

1. Duckyscript
2. Python

## Raspberry Pi Pico:



## What we made?

We transformed a Raspberry Pi Pico into a Rubber Ducky USB that can mimic a keyboard to type commands or execute scripts automatically on a connected computer. The device can run pre-written payloads to perform tasks like opening applications, typing text, or automating workflows.

This project combined hardware (Raspberry Pi Pico) with Ducky Script, a simple scripting language used to define the actions the Rubber Ducky performs.

## How We Made It

### 1. Setting Up the Raspberry Pi Pico

- **Flashing CircuitPython:** Copied the CircuitPython firmware file and pasted it into my Raspberry Pi Pico to install CircuitPython.
- **Tools Installed:** Downloaded the GitHub repository to convert the Raspberry Pi Pico into a Rubber Ducky for USB HID functionality,

### 2. Writing and Uploading Payloads


- **Payload Creation:** Wrote a simple Ducky Script
- **Uploading:** Transferred the Python file to the Pico via Thonny, ensuring it executed on startup.

### 3. Testing and Execution

- **Testing:** Connected the Pico to a test computer to verify payload execution.
- **Execution:** Pico acted as a keyboard, typing commands automatically.
- **Troubleshooting:** Debugged errors by adjusting scripts and retesting on different operating systems.

## Climate Change and Cybersecurity

- **Connection:** Digital systems manage renewable energy and climate data, making cybersecurity essential.
- **Key Points:**

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- **Renewable Energy:** Secure software ensures reliable wind turbines and solar grids.
  - **Climate Data:** Protection prevents tampering and ensures accurate research.
  - **Sustainable Security:** Energy-efficient cybersecurity minimizes environmental impact.

## How We Made the Poster

- **Concept:** Showcased the link between cybersecurity and climate change with Earth as the central focus.
- **Design Elements:**
  - Cybersecurity: Locks, shields, laptops.
  - Climate Change: Wind turbines, solar panels, trees, rivers.
- **Tools Used:** Canva

## Making the Video

1. **Filming:** Recorded key steps: setting up the Pico, testing payloads, and creating the poster.
2. **Editing:** Added transitions, titles, and music for clarity and engagement.
3. **Sharing:** Uploaded the final video to YouTube.