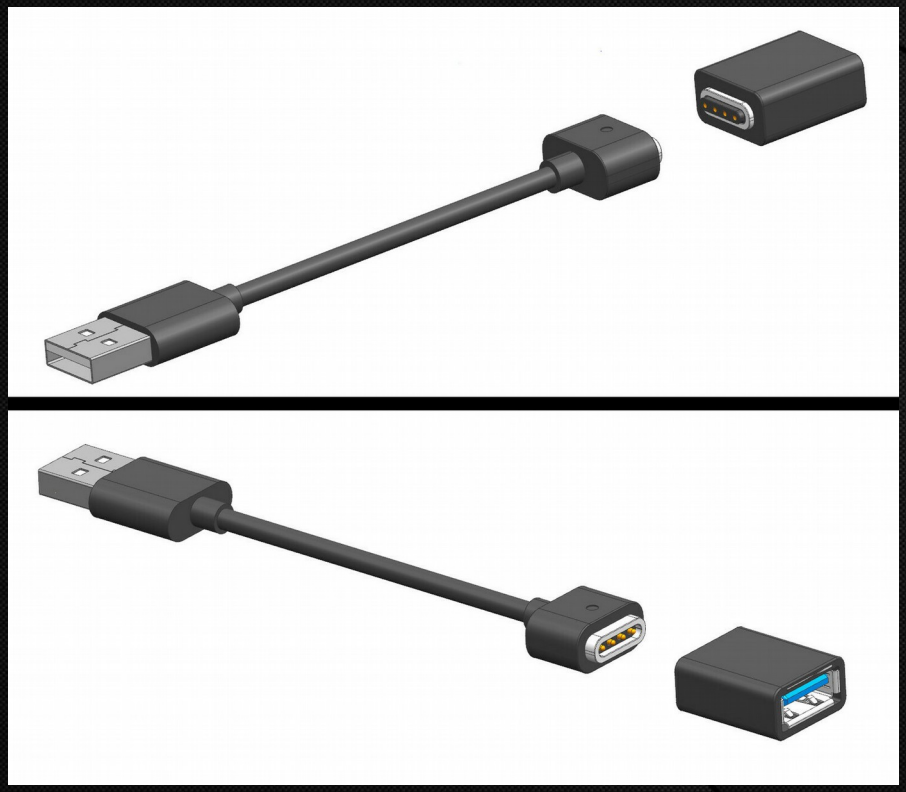
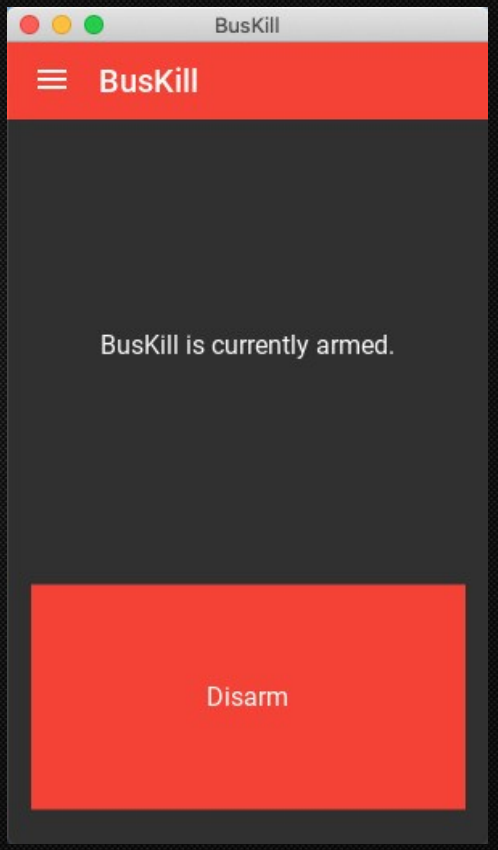
Michael Altfield
https://buskill.in

BusKill

Project





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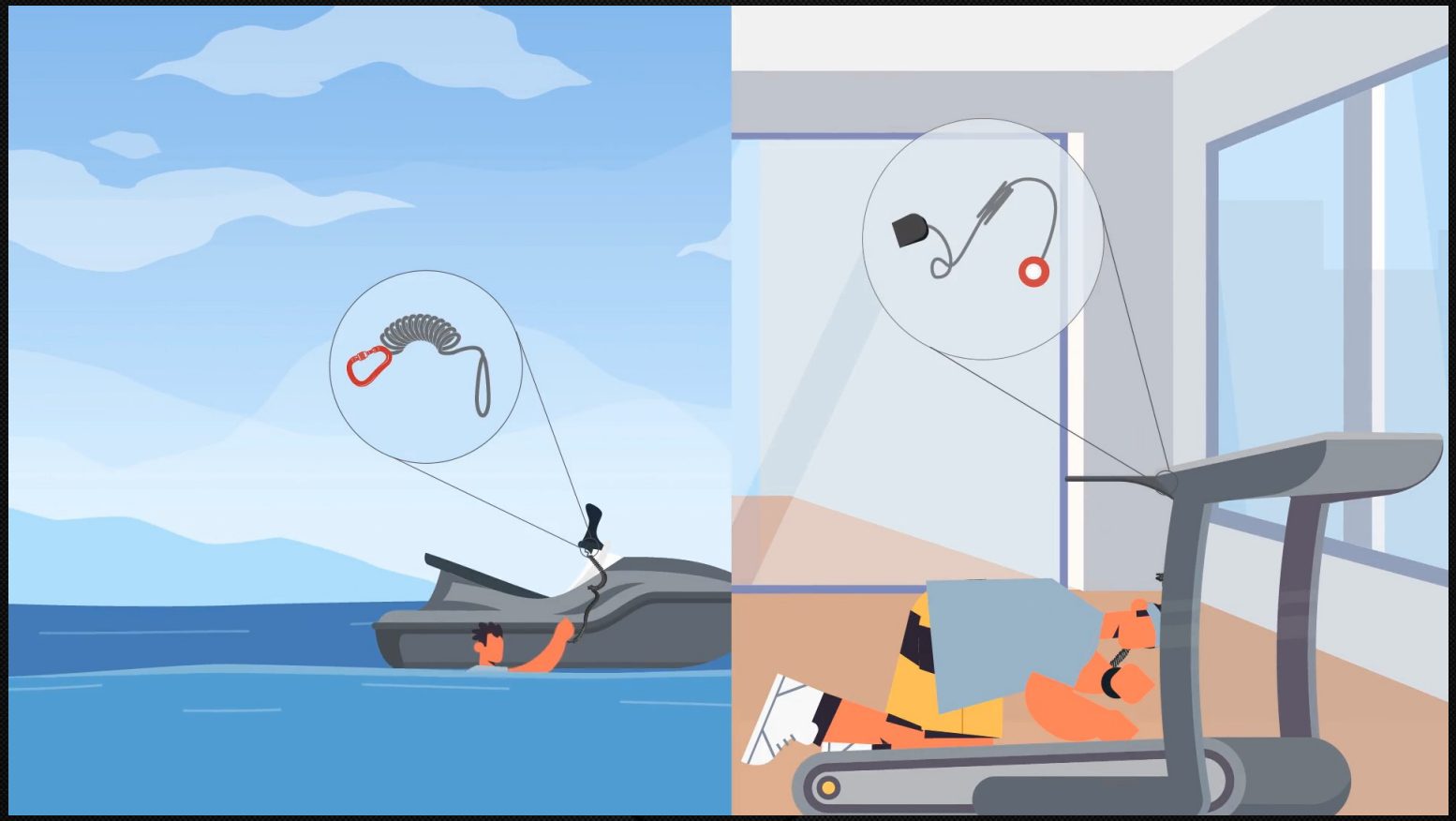
GPL Free Software
Free as in Freedom

https://github.com/buskill

BusKill

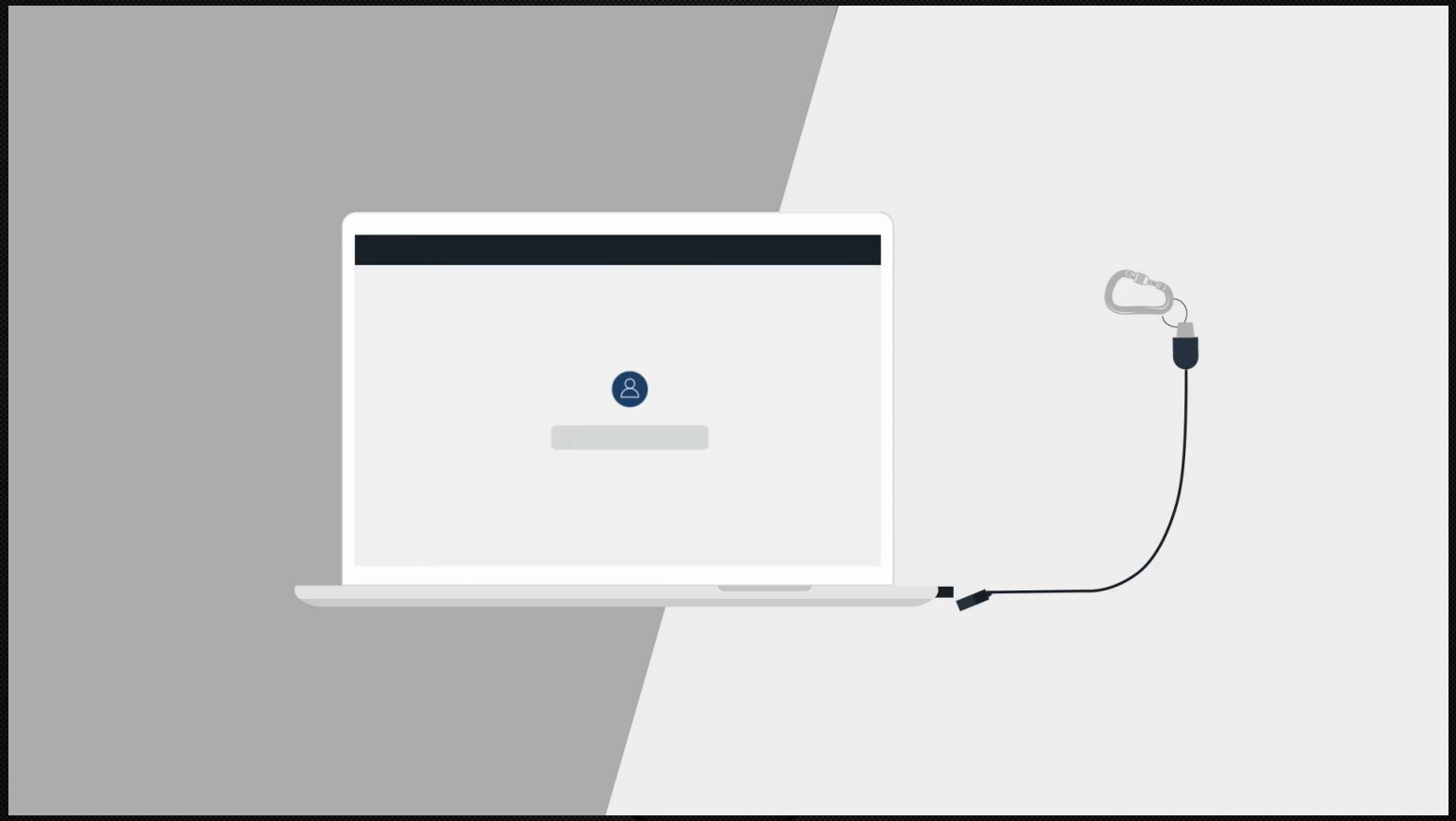
The Kill Cord



Boats, Jetskis Treadmills

BusKill

Laptop Kill Cord



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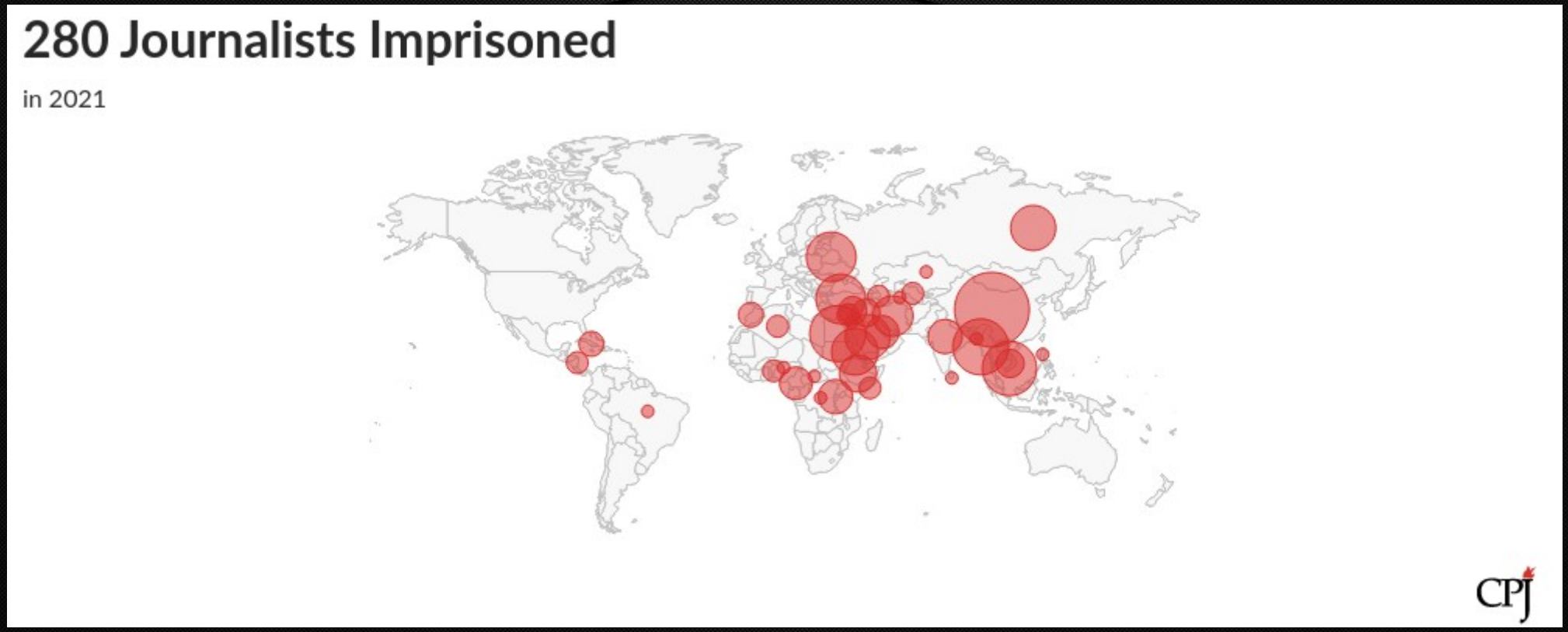
The Problem



Source: cpj.org/data/

BusKill

Unlawful Raids

Targeting Activists, Political Prisoners

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'Israel is joining an ugly club,' says rights group as director expelled

NEWS
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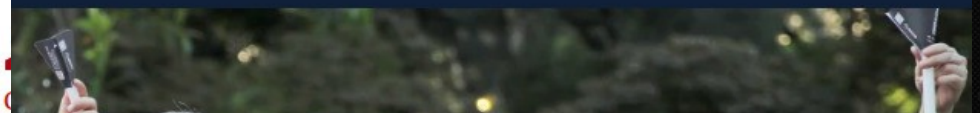
WORLD

Hong Kong activists get up to 14 months in prison over banned Tiananmen vigil

If commemorating victims of Beijing's 1989 crackdown is a crime, then "let me suffer the punishment," activist Jimmy Lai said before the sentencing.



Why?

FDE, 2FA, etc

- Limitations in physical attacks (after auth)

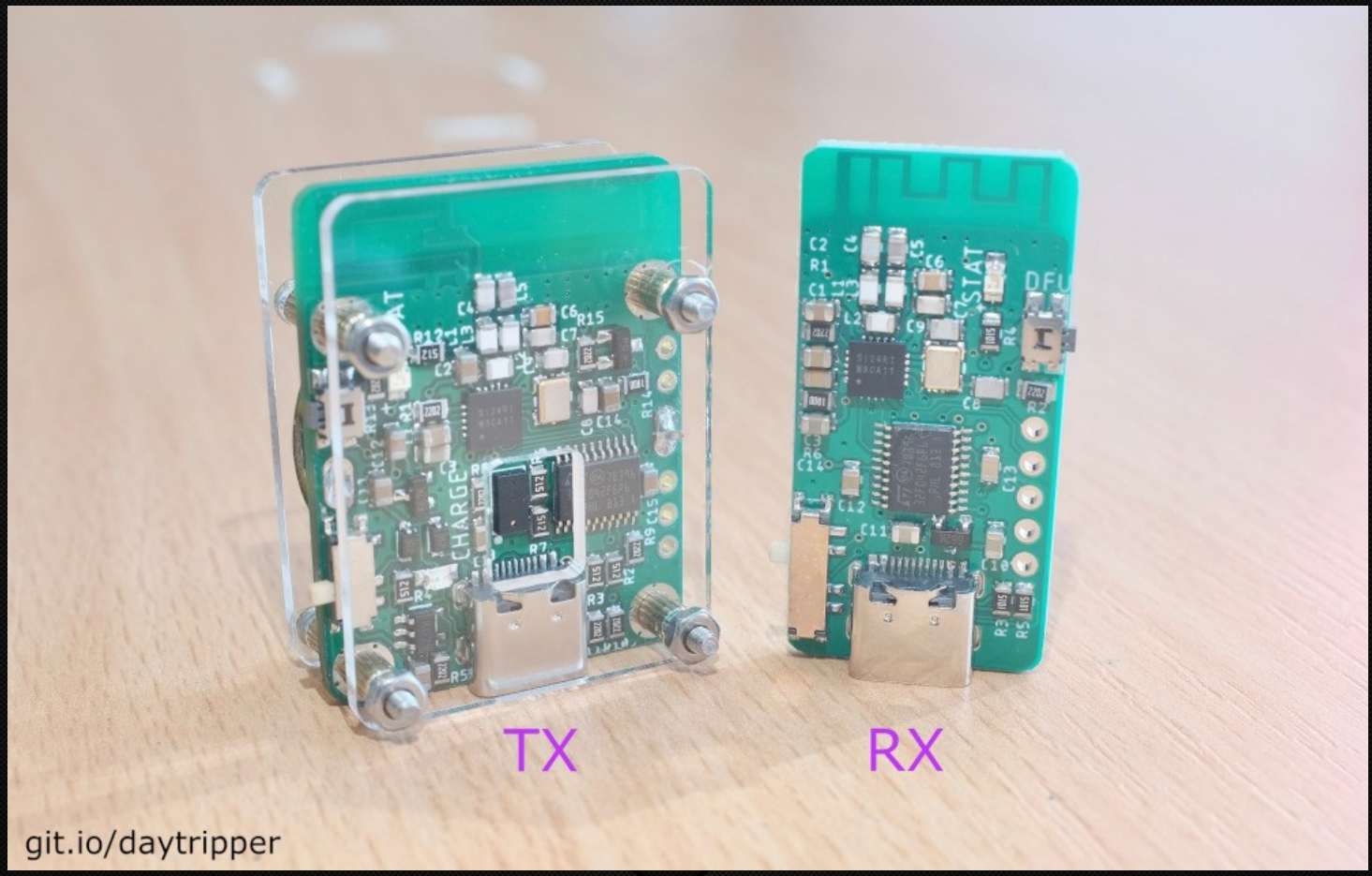
- How to auto "un-auth" (when replaced at the helm)

Solutions

- Bluetooth
  - \+ lots of options
  - \+ convenient
  - \- Designed to **un**lock (insecure)
  - \- Unreliable tech (tuned slow)
  - \- High attack surface (radio)

BusKill

Solutions



- Lasers
  - false-negatives

BusKill

Inception

- Created for Travel

- DIY Guide (2020)

Hacker News → Press Explosion

ZDNet | Q | MENU | AS

New USB cable kills your Linux laptop if stolen in a public place

Building your own BusKill cable costs between $20 and $45.

By Catalin Cimpanu for Zero Day | January 2, 2020 -- 21:56 GMT (05:56 SGT) | Topic: Security

A software engineer has designed a so-called USB "kill cable" that works as a dead man's switch to shut down or wipe a Linux laptop when the device is stolen off your table or from your lap in public spaces like parks, malls, and internet cafes.

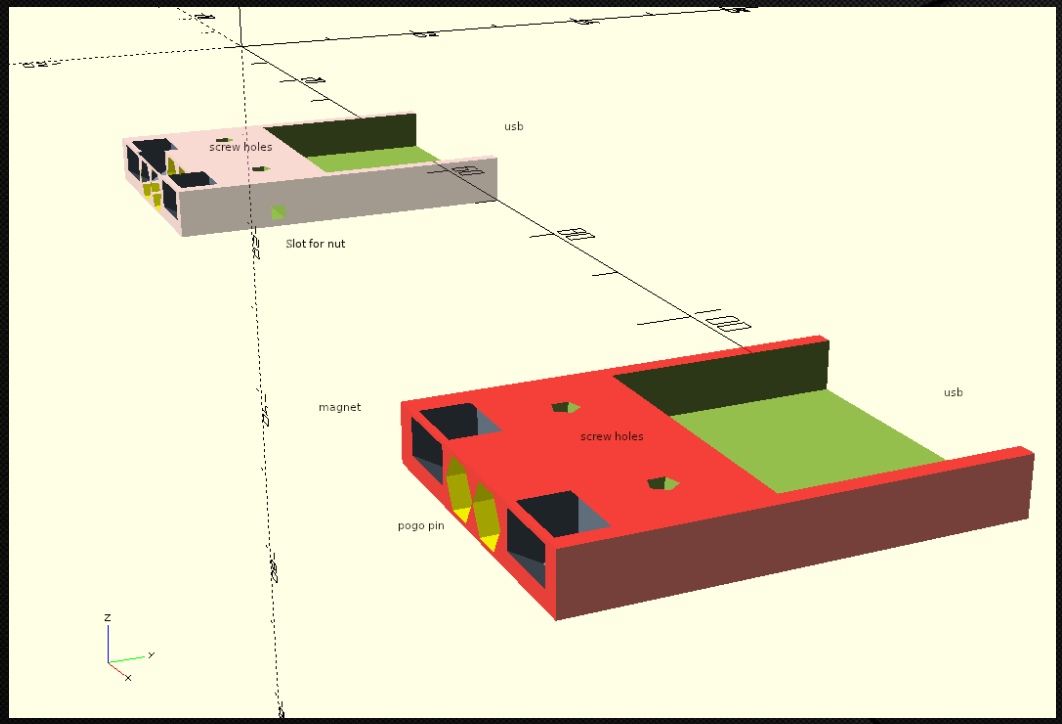
The cable, named **BusKill**, was designed by Michael Altfield (https://twitter.com/MichaelAltfield), a software engineer and Linux sysadmin from Orlando, Florida.

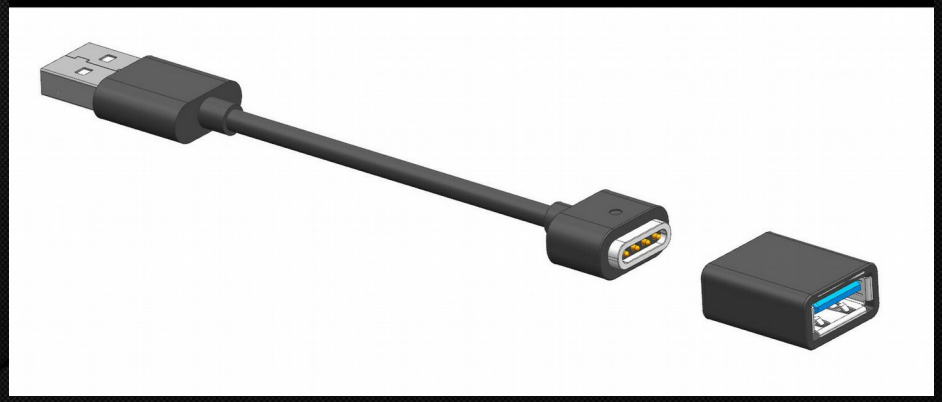
Linux-only (udev)

```
cat << EOF | sudo tee /etc/udev/rules.d/busKill.rules
ACTION=="remove", SUBSYSTEM=="usb", RUN+="DISPLAY=:0 xscreensaver-command -lock"
EOF
sudo udevadm control --reload
```

- 2017 – Initial Dev, QubesOS Only
- 2020-01 Windows CLI port by community
- 2020-06 GUI App
  - Windows 10 (PyInstaller)
  - MacOS (DMG)
  - Linux (AppImage)
- 2020-10 GUI App v0.4.0 Released

Libre Hardware



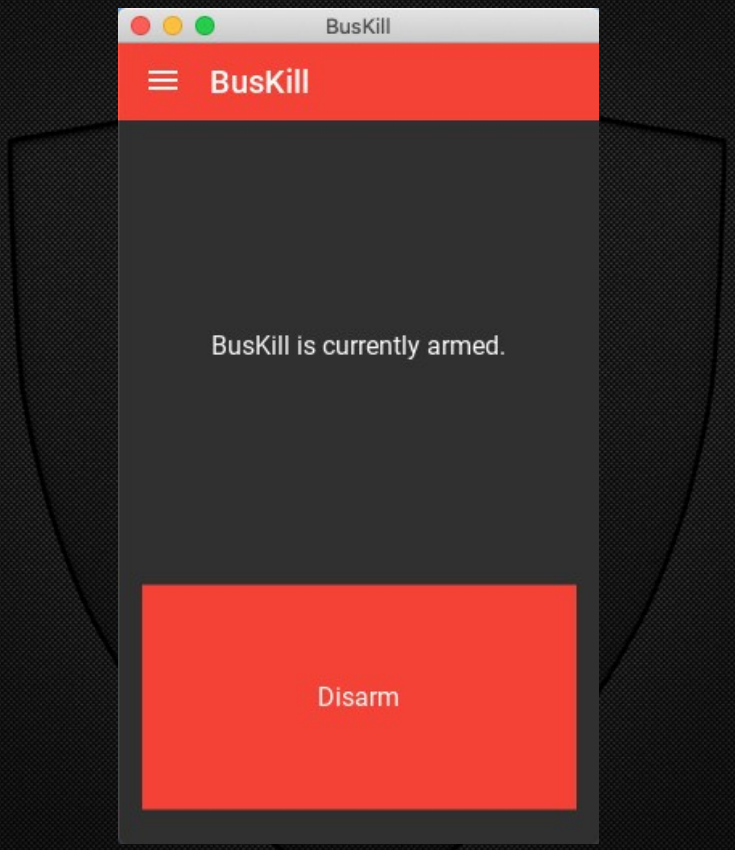


Interdiction?

https://github.com/BusKill/usb-a-magnetic-breakaway

BusKill

Free Software



https://github.com/BusKill/buskill-app

BusKill

Self-Destruct

(in 5.2 seconds)

BusKill

Get Involved

docs.buskill.in

Roadmap

Hardware
- 3D-Printable Magnetic Breakaway

Self-Destruct Triggers
- Veracrypt
- FileVault
- BitLocker

CI, DevOps, QA
- Reproducible Builds
- More OS Testing

Python Dev Roadmap
- Shutdown trigger
- Port to Android/iOS

Attribution
- Michael Altfield
- cyberkryption
- Steven Johnson
- Jacob Neplokh
- Melanie Allen

Self-Organized Talk

@MichaelAltfield

michaelaltfield.net

PGP Fingerprint: B162 9E1F 1737 EC4F 74C9 E923 1EF1 68D2 68C4 0535

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