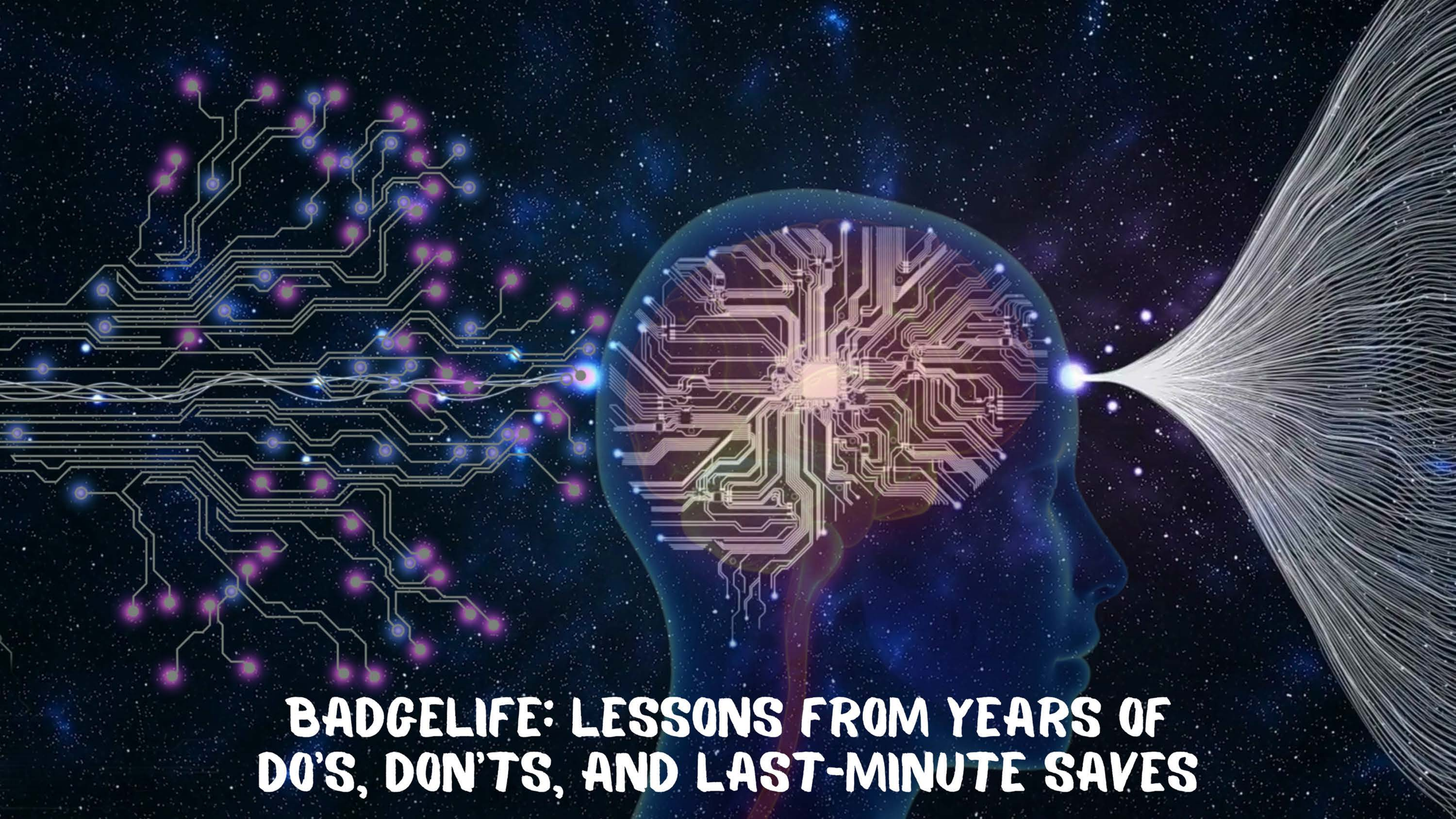

BADGELIFE: LESSONS FROM YEARS OF
DO'S, DON'TS, AND LAST-MINUTE SAVES

INTRO



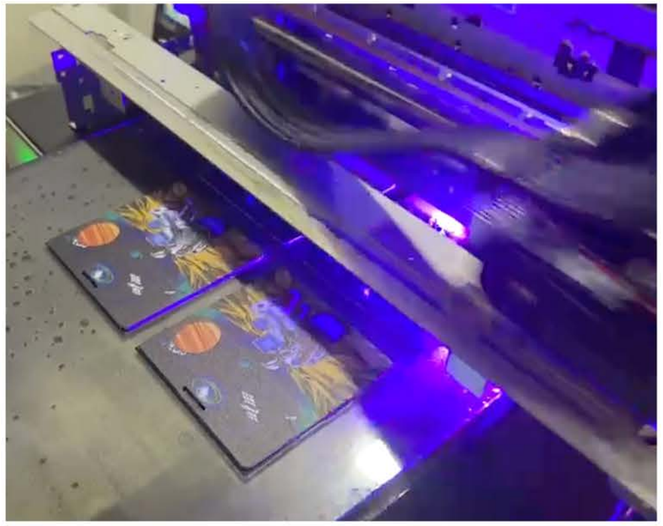
ABHINAV PANDA

- Doing badgelife full-time for 9 years
- Hosted Hardware Villages across 13 countries
- Founder of Hackerware.io, a boutique badgelife lab
- Sin CON Person Of The Year 2025

SETUP

UV Printer

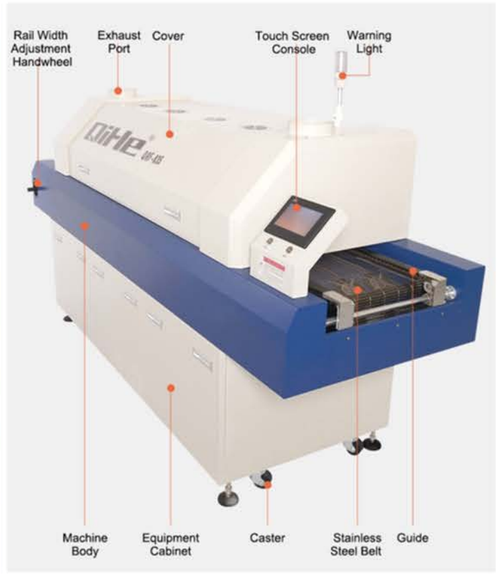




Stencil Printer



Reflow Oven





Fabrication



Pick & Place

PORTFOLIO



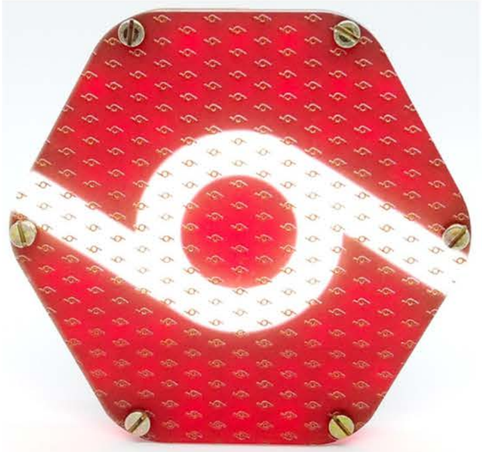







GEMINI
TAURUS
ARIES
PISCES
AQUARIUS
LIBRA
CAPRICORN
CANCER
LEO
SAGITTARIUS
SCORPION
VIRGO
CTF
1
0






HACK THE PLANET
HACKERWARE.IO


SANDBOX
RSAC 2023
Stronger
Together


CANCAMERO
NULLBYTE
SECURITY CONFERENCE




BUG
BOUNTY
VILLAGE
MODE
CTF
0
1


flare


app
MODE
1
CTF
0


MODE
cymulate
CTF
1
0

DO'S

- Come up with great ideas, then work your way backwards on what is plausible
- Break the process into multiple doable parts
- Plan for the future - week-wise planning with buffers of logistical and acts of god delays
- If outsourcing, keep generous amounts of time and patience
- If doing experimental / never done before features - be prepared for exponential risks and heavy rework
- Test thoroughly multiple times - hardware, firmware, and durability
- Experiment, Experiment, Experiment - materials, light diffusions, colours

DONT'S

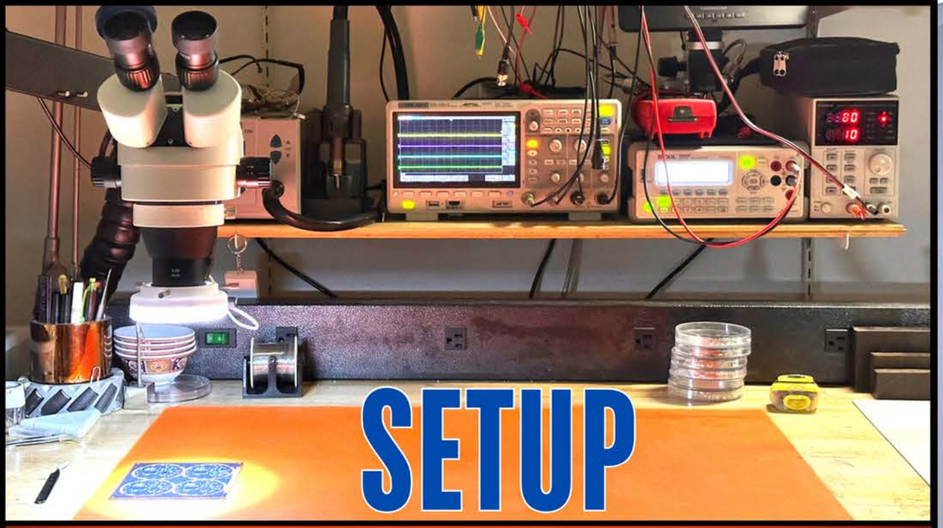
- Beginners: Don't begin your journey with complicated ideas. Start with an SAO.
- Don't design circuits before doing the part availability check.
- Don't fabricate a full batch without prototyping the idea on a breadboard or sample PCBs.
- Don't ignore the early unexpected behaviour - it might balloon into a big issue at scale.
- Don't finish badges without a durability test - wear your badges for a day or two.
- Don't ignore what makes good packaging and reliable shipping

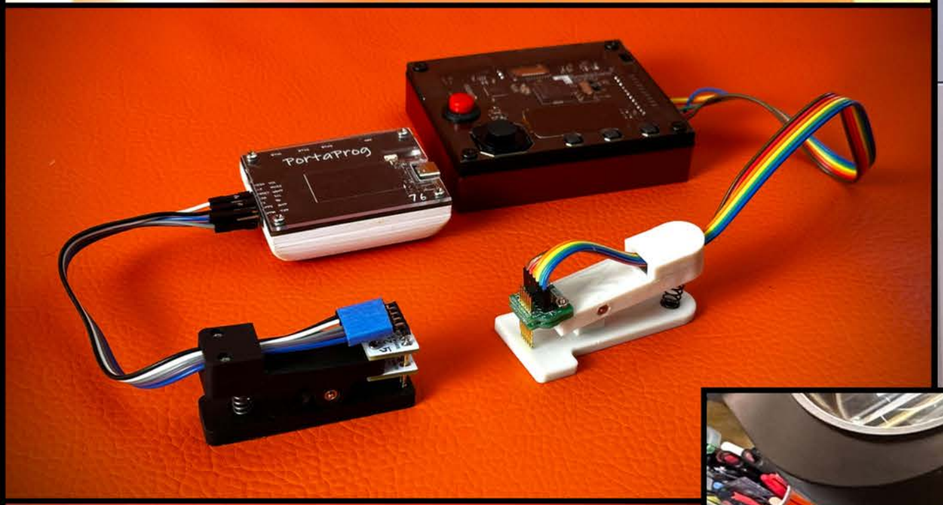
INTRO



BRADÁN LANE

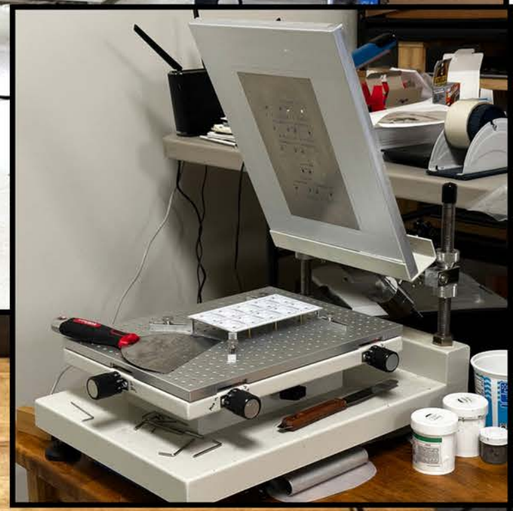
- UX Designer & User Research
- Purveyor of Personas
- eChallengeCoins (aosc.cc)
- Turnkey Client Badges
- Educational model: *How hard Can it Be?*
- 3rd (4th?) Career
- Pre-dates the Internet


SETUP


PortaProg




NeoDen




OFF:025

PORTFOLIO


PortaProg XL
BradánLane STUDIO


REDACTED
DC NEXTGEN
PortaProg
UC Stanford
DC NEXTGEN
BradánLane STUDIO

DO'S

- **Design for Manufacturing**
- **You Do You**

  DIY tools & space that works for you
- **Create Multipliers**

  a 2 minute task, 300 times is 10 hours
- **Reduce Labour / Simplify**

  3D printers are the magic sauce
- **Good Enough is Good Enough**

  ... except when it comes to solder paste
- **Track Your Time**



DONT'S

- **Assumptions Kill**

  prototyping is not production

- **You are Your Own Worse Enemy**

  be willing to change your own mind

- **Things Have Always Been Done That Way**

  question everything (especially footprints)

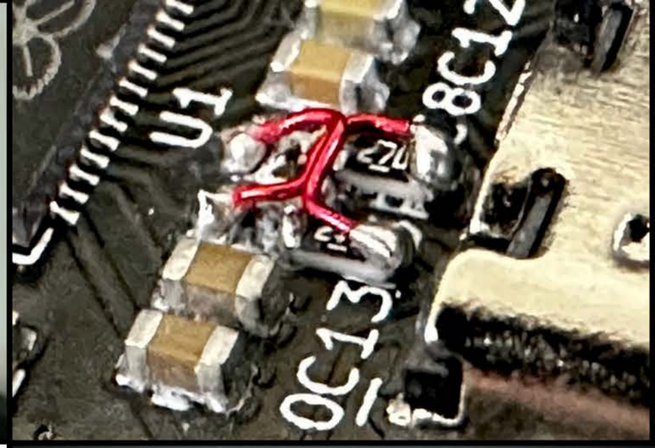
- **Going It Alone is Lonely**

  many hands make light labour &

  someone is always smarter than you

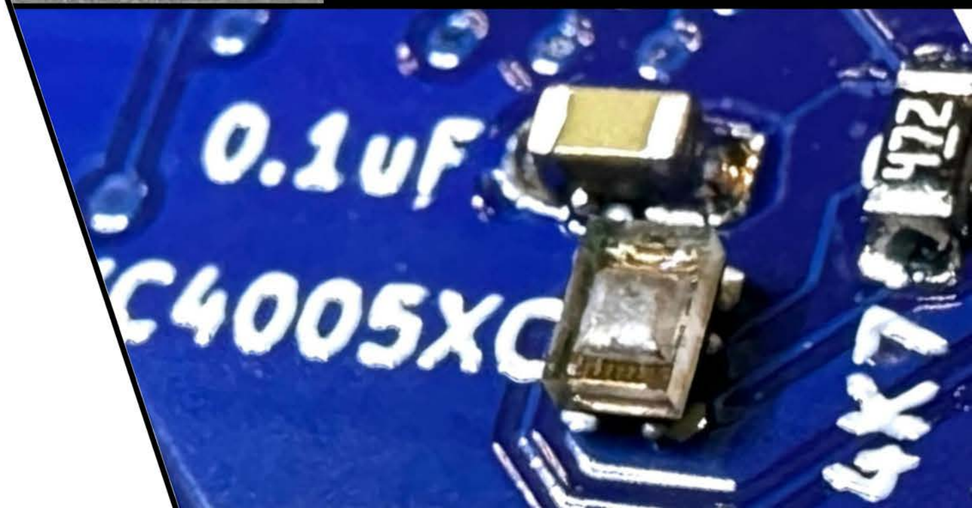
- ~~**Track Your Time**~~











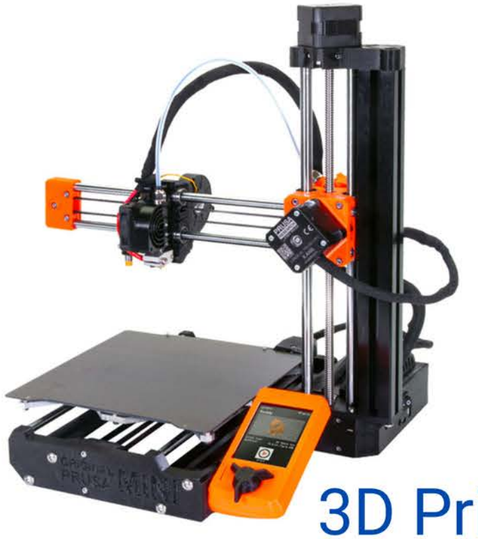
INTRO



MAKE IT HACKIN (ANDREW)

- Content Creator
  - TikTok, YouTube, Instagram, Snapchat,
  - Twitter, Bluesky, Mastodon
  - https://beacons.ai/makeithackin
- Badge Maker
- Hacker / Reverse Engineer
- Theater / Physics / Military
- Automation Enthusiast
- Points Maximizer

SETUP



3D Printers





Supplies for

Online Store





Laser Cutter



Stencil Printer

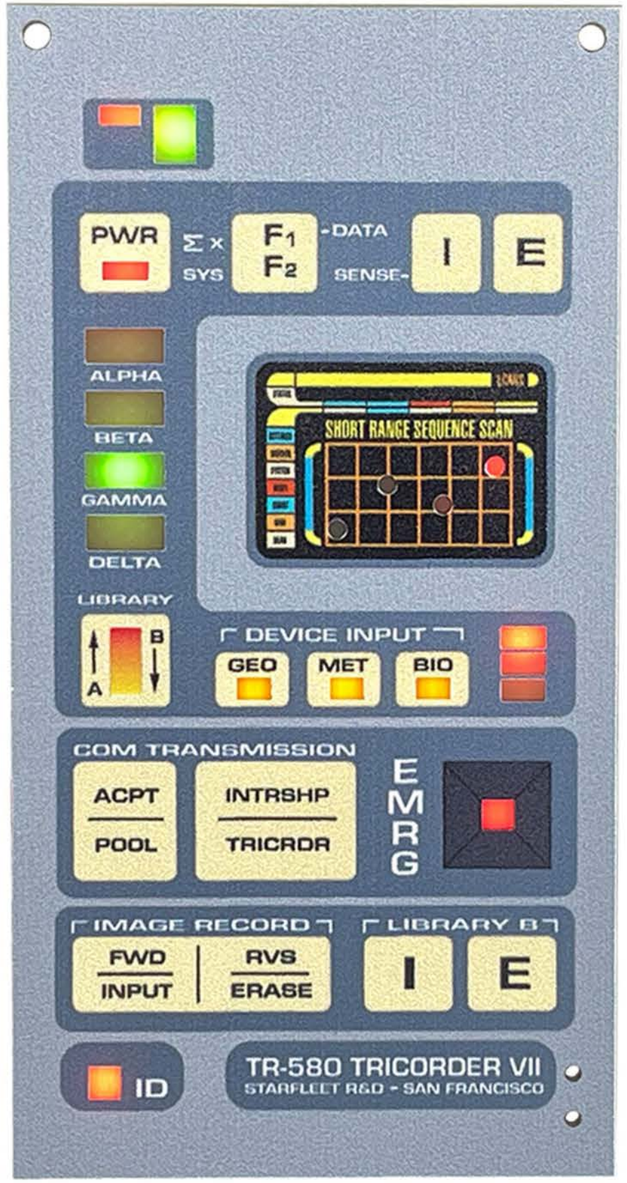


Pick and Place

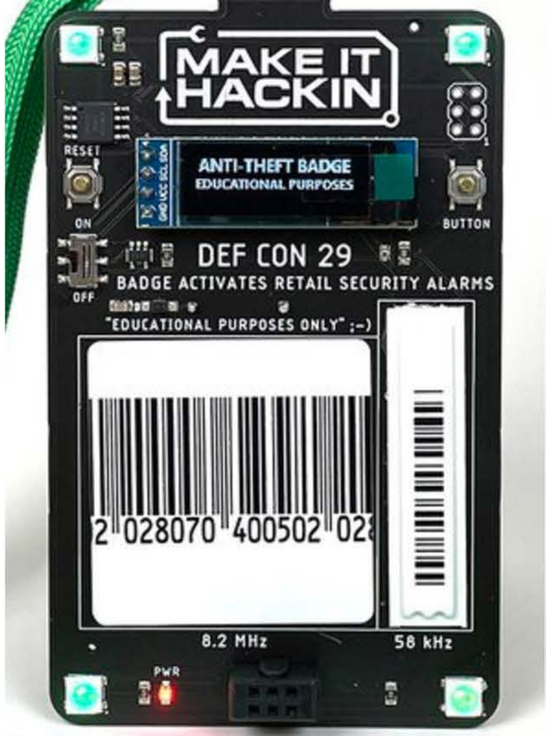


PCB Reflow Oven

PORTFOLIO

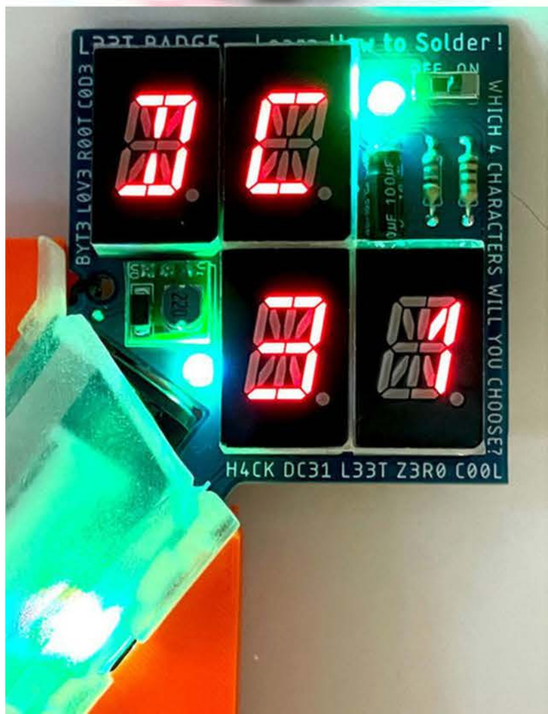

PWR
SYS
F1
F2
-DATA
SENSE-
I
E
ALPHA
BETA
GAMMA
DELTA
LIBRARY
SHORT RANGE SEQUENCE SCAN
DEVICE INPUT
GEO
MET
BIO
COM TRANSMISSION
ACPT
POOL
INTRSHP
TRICRDR
EMRG
IMAGE RECORD
FWD
INPUT
RVS
ERASE
LIBRARY B
ID
TR-580 TRICORDER VII
STARFLEET R&D - SAN FRANCISCO


@FlipperLocator FlipBoard v1.1
HACK THE PLANET!
PRESS BUTTONS
ACTION: 00
FLIPPER


MAKE IT HACKIN
ANTI-THEFT BADGE
EDUCATIONAL PURPOSES
RESET
ON
OFF
BUTTON
DEF CON 29
BADGE ACTIVATES RETAIL SECURITY ALARMS
"EDUCATIONAL PURPOSES ONLY" ;-)
8.2 MHz
58 kHz
PWR


SKULL OF FATE


MAKE IT HACKIN
CHAMBER SAO ADAPTER
BONUS POINTS:
REMOVE STICKER WITHOUT
OFFICIAL HACKER SEAL OF HACKING


Solder!
WHICH 4 CHARACTERS WILL YOU CHOOSE?
H4CK DC31 L33T Z3R0 C00L

DO'S

- Plan Ahead
  - Component Size
  - Setting Up a Pick and Place
  - Creating To-Do Lists
- Awesome Tools
  - Must-Haves
  - Software Stack
  - DIY vs Automated
- Time Management
  - Multi-Task
  - Automate
  - Collaborate
- Verify, Verify, Verify
  - Datasheet,
  - Component Footprints
  - Design Rule Check
- Selling Your Swag
  - Pricing
  - Online Platforms
  - Automation

DONT'S

- Underestimating the Basics
  - Tools
  - Communication
  - Interest
- Stressing Out
  - Burnout
  - Scheduling
  - Perfection
- Waiting Until the Last Minute
  - Combining Orders
  - Tool Failure
  - Rework
- Putting All Your Eggs in One Basket
  - Have “Outs”
  - Vendors
  - Components
- Providing Bad Service
  - Documentation
  - Returns
  - Vaporware

PANEL DISCUSSION



ASK YOUR QUESTIONS

... OR STUMP THE CHUMP