

# Community Built E-ink Laptop Project



Alexander Soto  
Project Lead  
Core Team

I'm a community organizer, educator, software engineer, hacktivist, and agent of social change.

My interests are in exploring community-building, social justice, education, and leveraging technology to address social problems.

In the past, I've worked as a labor rights organizer, a teacher, and I'm currently an Expert In Residence at [Resilient Coders](#).

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# We are EI-2030

Request Invitation

Member Login

*HEADS UP, LED/LCD!*

# Electronics

▶ SEE THE EI-2030 MEMO ◀

direct link; no signup required.

## TECHFOLK ADVOCACY

more a peer movement than a stuffy lobbying stink-tank, we're everyday people like you, **pushing genuine awareness** of societal issues created by conventional blue-lit displays and the potential of a 2030 we want: where electronically-inked displays RULE.

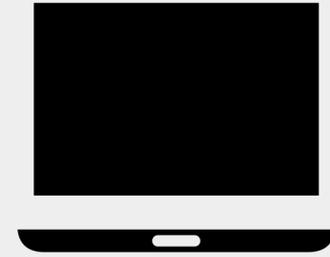
## ACTIONABLE SCIENCE

think that electronic paper is just a rigid, overpriced book reader and stuck in the black & white stone age? think again. while not an R&D body, we are **inventors, users, and entrepreneurs alike, planning & scheming together**, talking from low-level to Hi 🗣️!

## STRAIGHTUP GOVERNANCE

we're friendly and responsive to big industry needs, but protocols ensure we're never sellouts and **keep our community at the core, by being organized and run transparently.** [click here](#) to see our open working group manual, priorities, and policies Wiki.

# Objectives



- To generate interest in the idea of creating a laptop using non-emissive displays.
- To iterate, test ideas, document, and show our work.
- Create a crowdsource campaign after the successful creation of a minimum viable product.
- Bring the MVP to a manufacturer and build at scale.

# Working Groups



- Led by one or two people as leads.
- Defines a metric/cost for who the device is for.
- Working groups are time-boxed defined.
- A "template" provided for the working groups to start and self-organize.

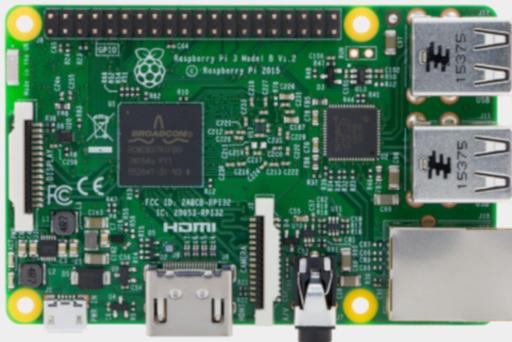
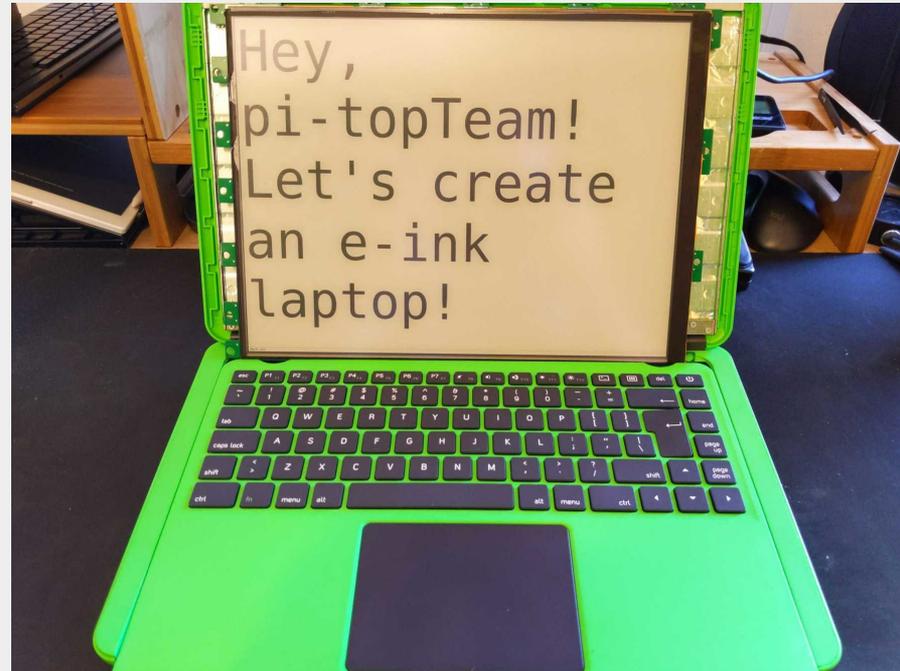
# Working Groups Contd.



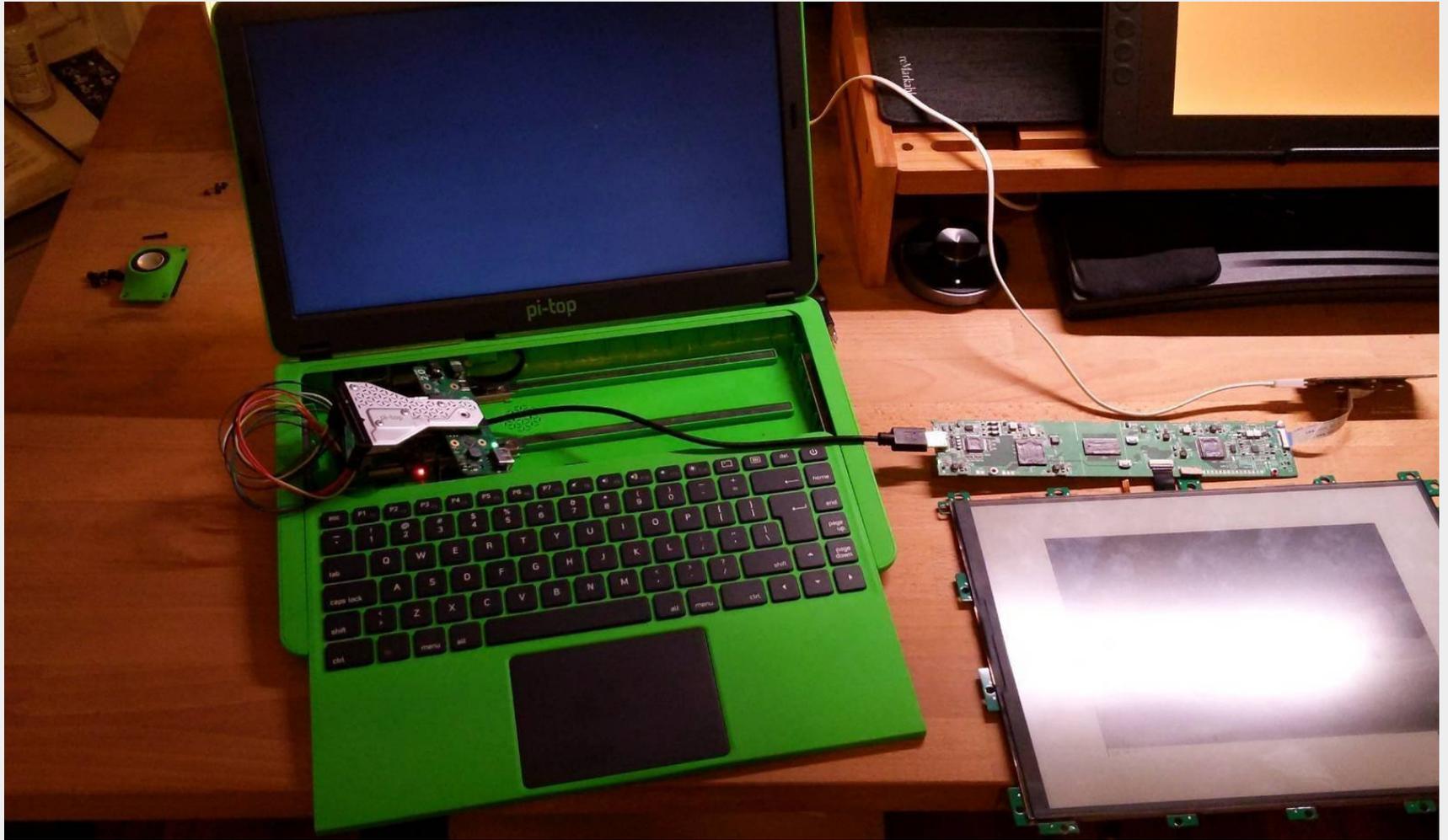
- The working group documents its process in a designated website, forum, Github, a build log.
- Share resources/knowledge/material/monetary.
- Generate interest, share our work with others.
- Iterate, iterate and iterate.

# Working Group: PaperTop

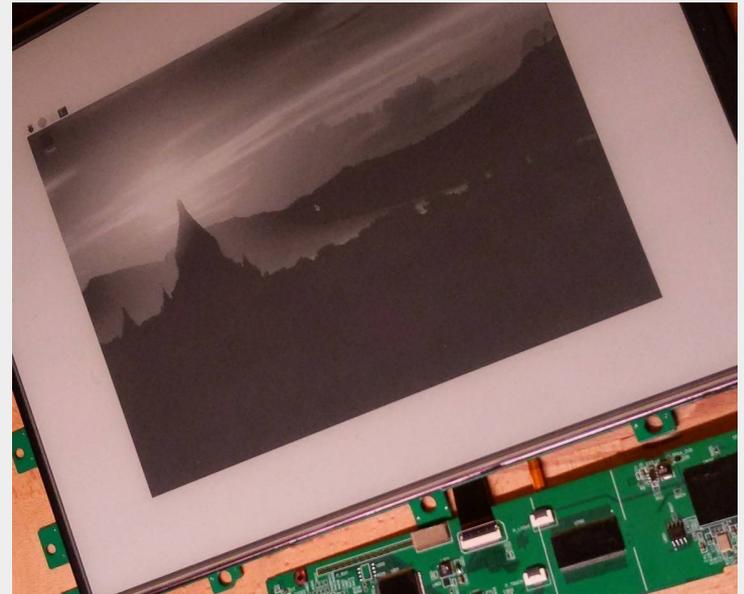
**Objective:** The objective of the PaperTop is to explore creating an e-ink laptop using a Raspberry Pi 3B+, Pi-Top and an e-ink panel. Explore what other single board computers could be supported with the chassis. Explore what modifications could be done to the Pi-top and what is and is not possible.



# PaperTop



# PaperTop



# PaperTop

## 🚩 The pi-top [3] + Raspberry Pi 4 (Franken [3])

pi-top [3]



pi-topTEAM

4 ✎ Mar '20

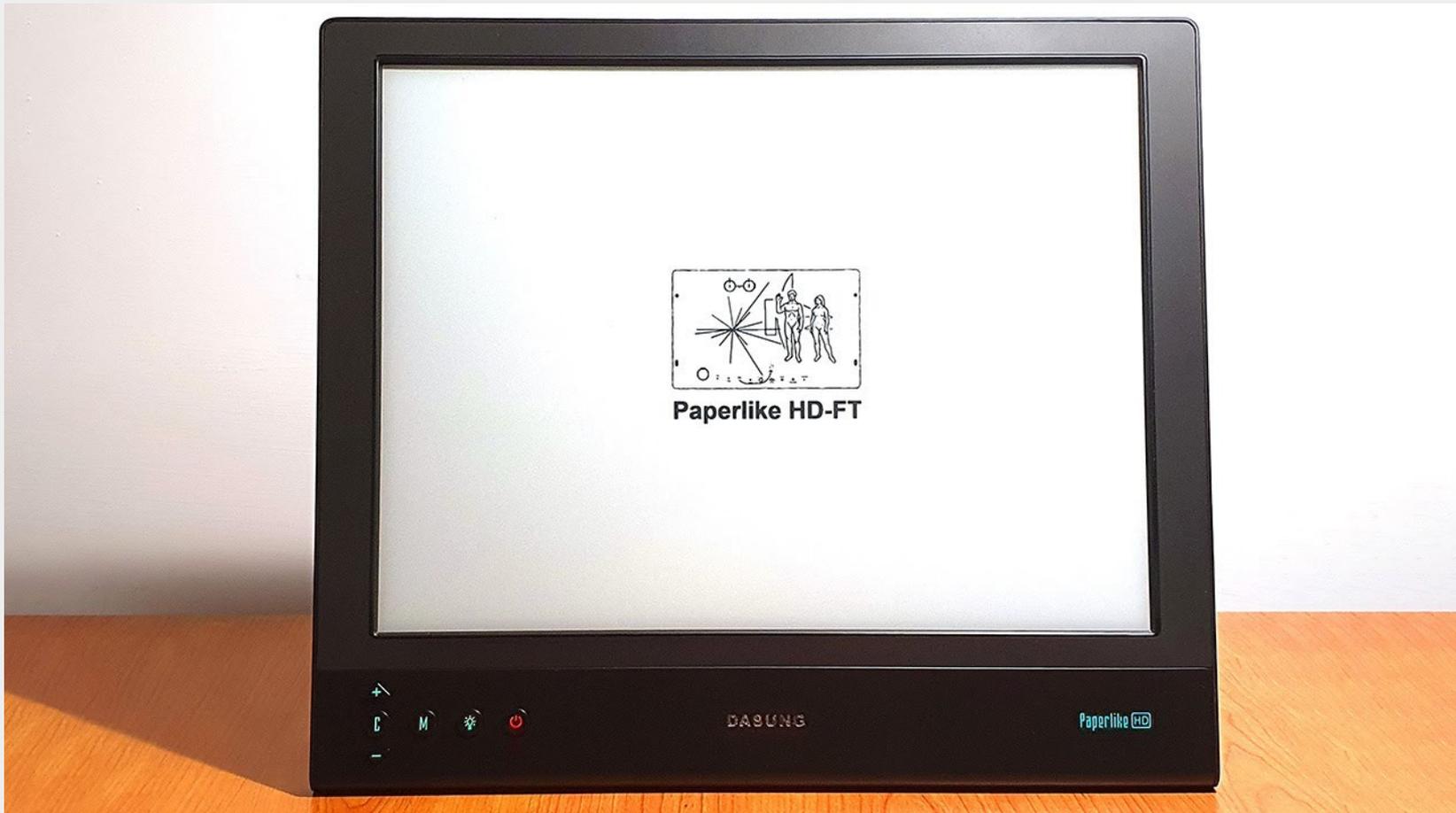
We've heard a lot of you asking about when we'll release a **pi-top[3] that can accept a Raspberry PI 4** and while we love the idea ourselves, there's a lot of prototypes that need to be made in between to get something like that working!

I have a reputation in the team for being the Dr Frankenstein of electronics (See [evidence](#) 28 🧑🏻 🧑🏻 🧑🏻 ). So I thought while London is under Covid-19 Lock down, I may as well have a go with putting a Raspberry Pi 4 Model B inside of a pi-top [3]!

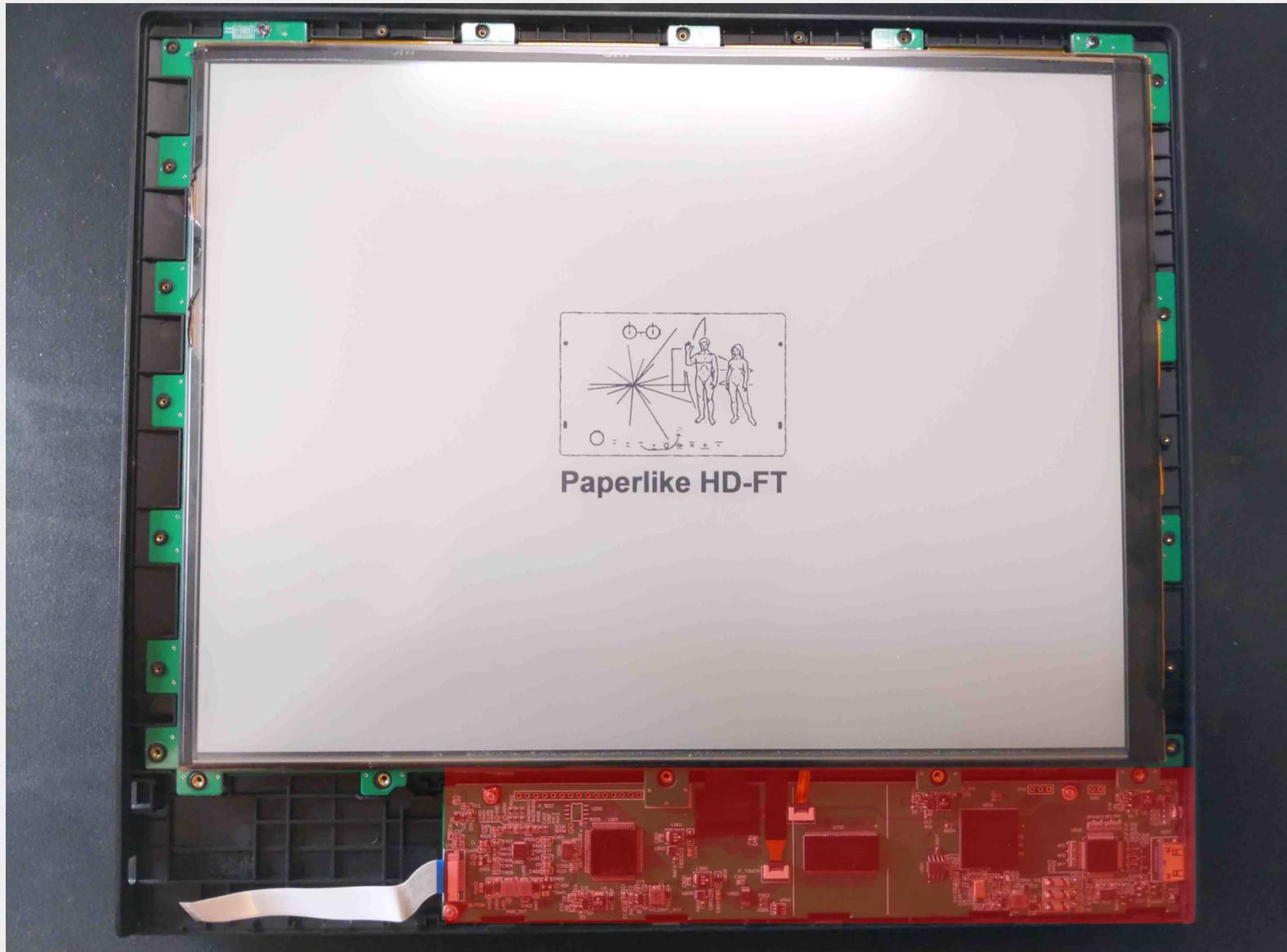
Needless to say, improvements can be made but I thought I would show V0.0 of my creation first!



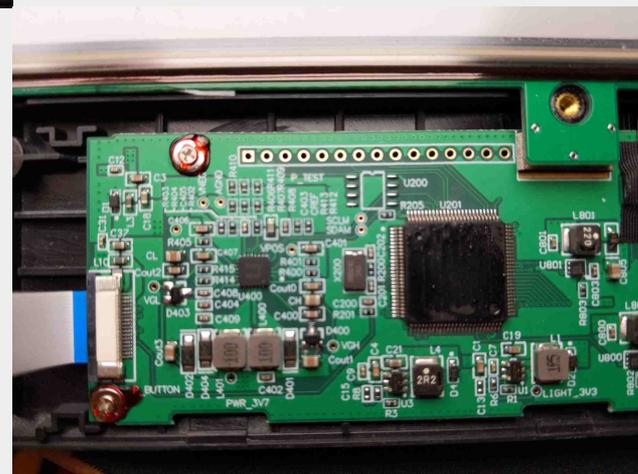
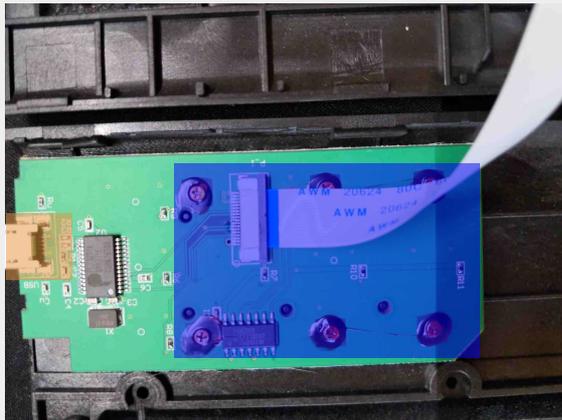
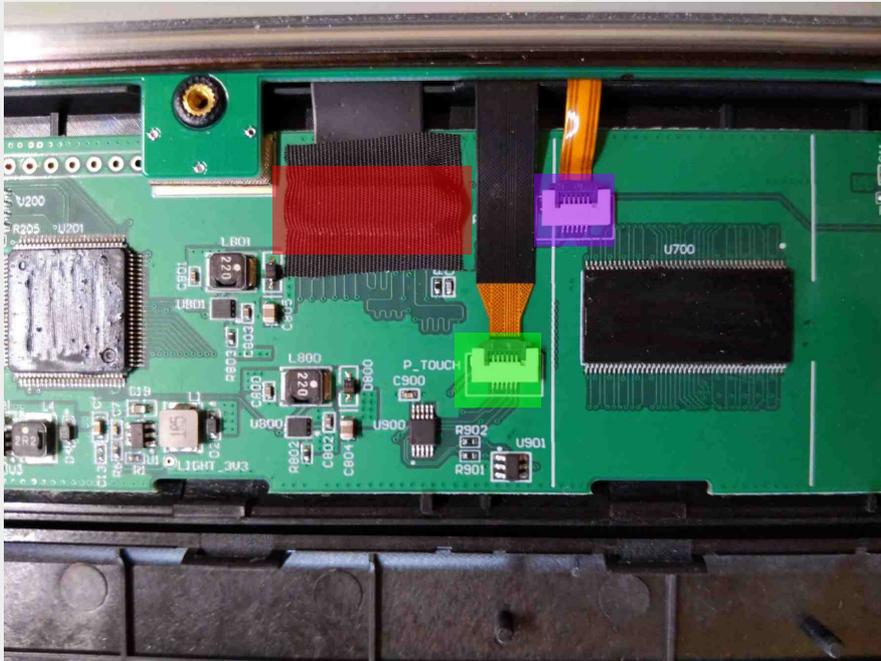
# Dasung Paperlike HD-FT



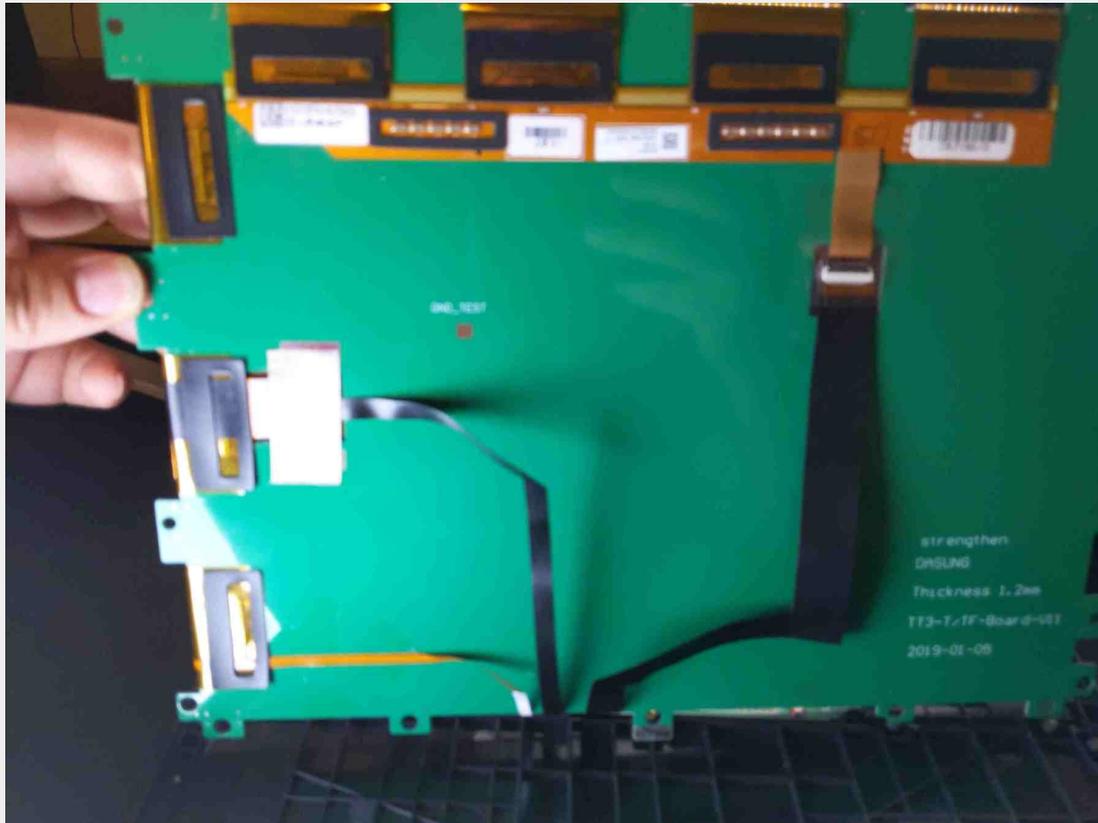
# Dasung Paperlike HD-FT teardown



# Dasung Paperlike HD-FT teardown



# Challenges



# Challenges





# Resilient Coders

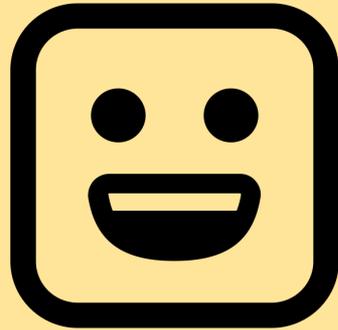


Our students spend 20 weeks with us, learning object-oriented programming principles, through the vehicle of full stack javascript; that's vanilla JS, React, Express, Node, and PostgreSQL.

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**Thank you!**

