



# From Prototype to Production: Crowdfunding and Shipping the Modos Paper Dev Kit

Alexander Soto, Founder  
[modos.tech](http://modos.tech) • [alex@modos.tech](mailto:alex@modos.tech)

# Modos Paper Monitor

A fast, low-latency, open-hardware e-paper monitor and dev kit



\$198,784 raised

of \$110,000 goal

180% Funded!

Order Below

9  
updates

Sep 18  
funded on

305  
backers

Available for pre-order.

\$199 - \$599

[View Purchasing Options](#)

## Recent Updates

[Highlights, Certifications, and Production Progress](#)

Dec 08, 2025

[A Beginning, Not an End](#)

Sep 17, 2025

[Together, We've Reached Our Goal](#)

Sep 11, 2025

[Developer Kit API Demo](#)

Sep 02, 2025

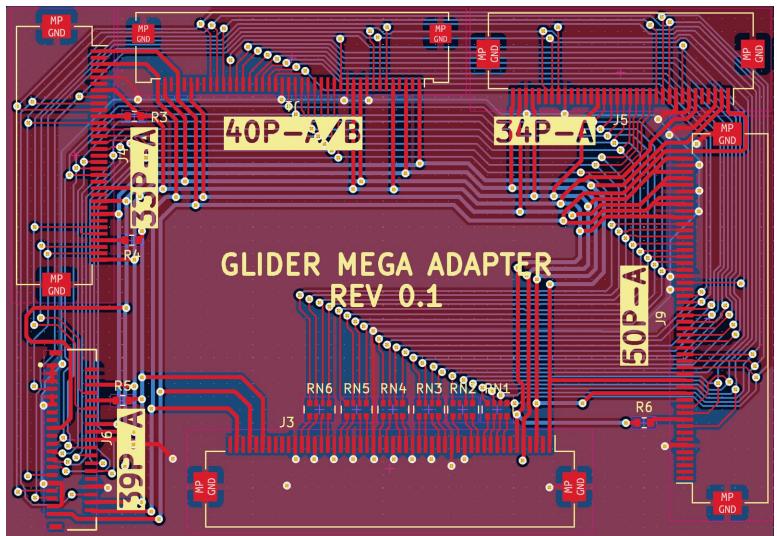
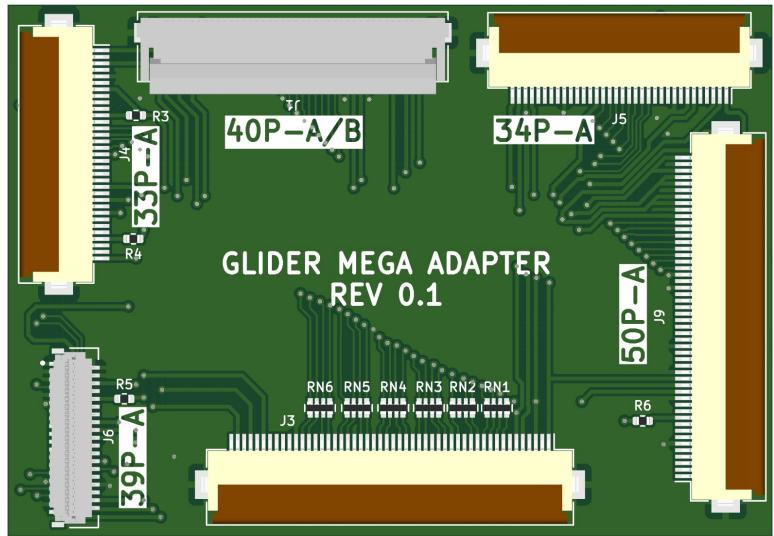
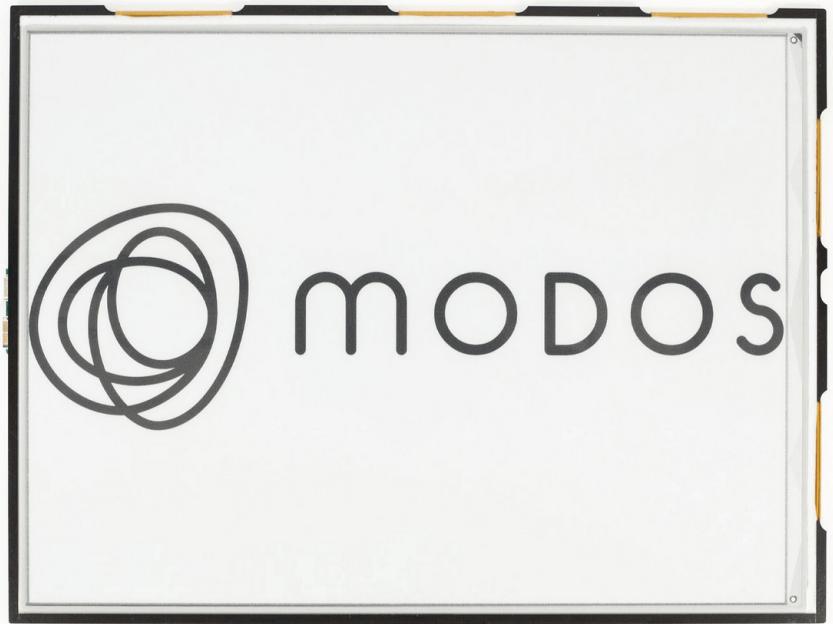
[View all project updates](#)

me@example.com

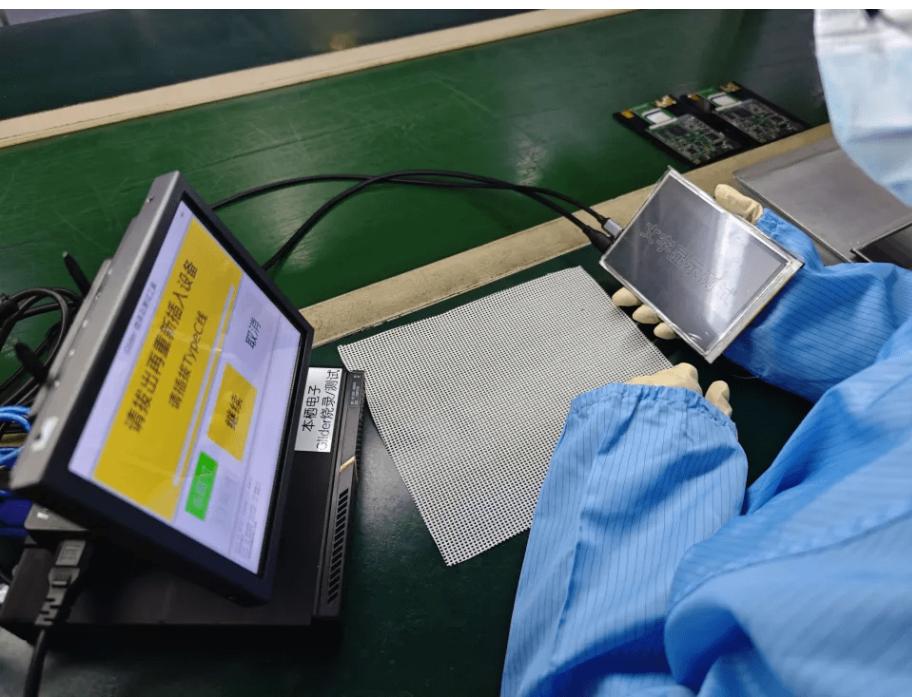
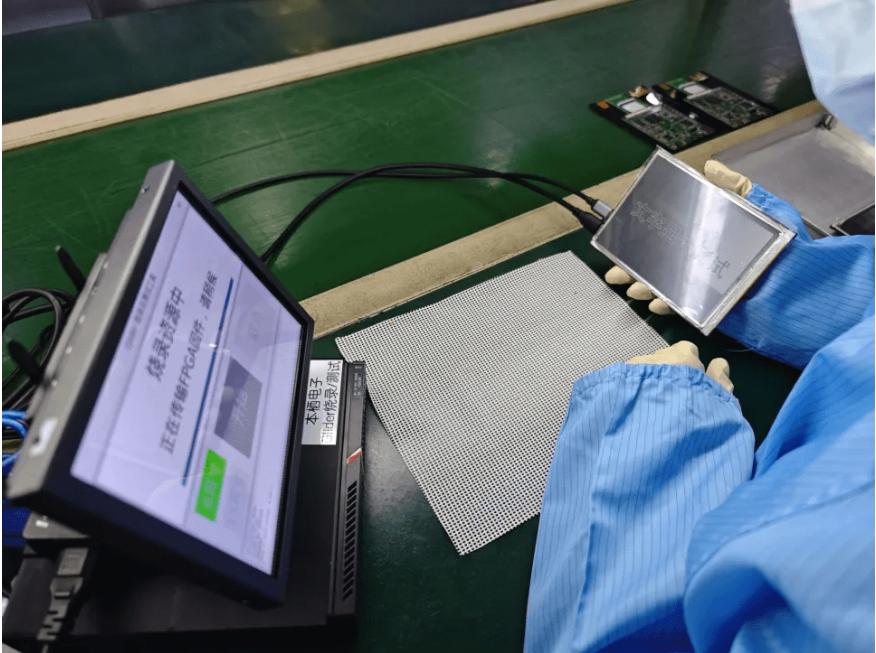
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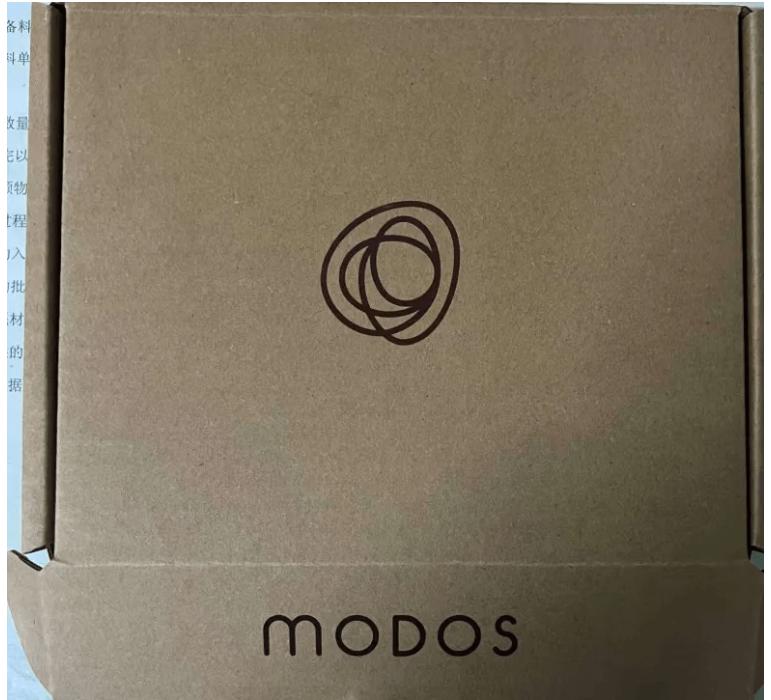
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Modos Tech  
E-Paper  
FPGA Boards







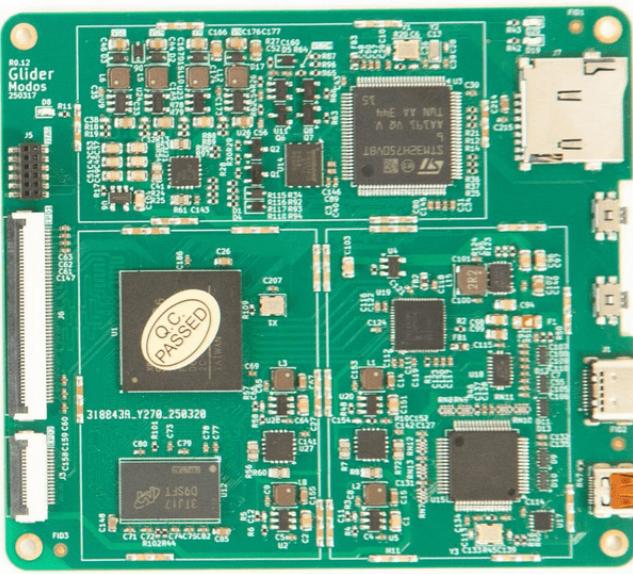
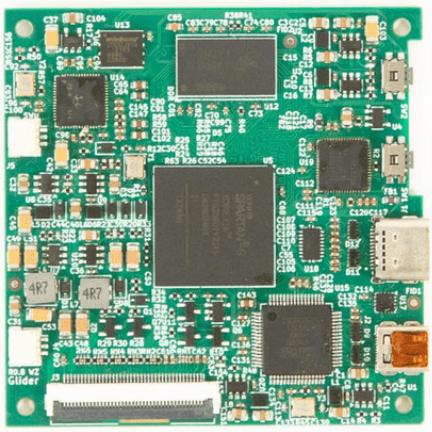
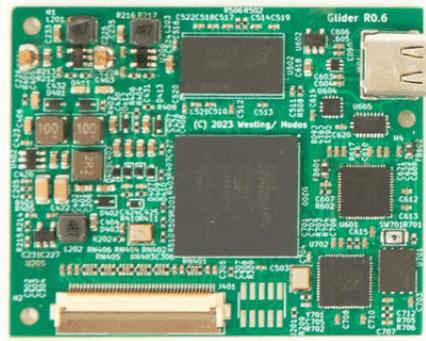


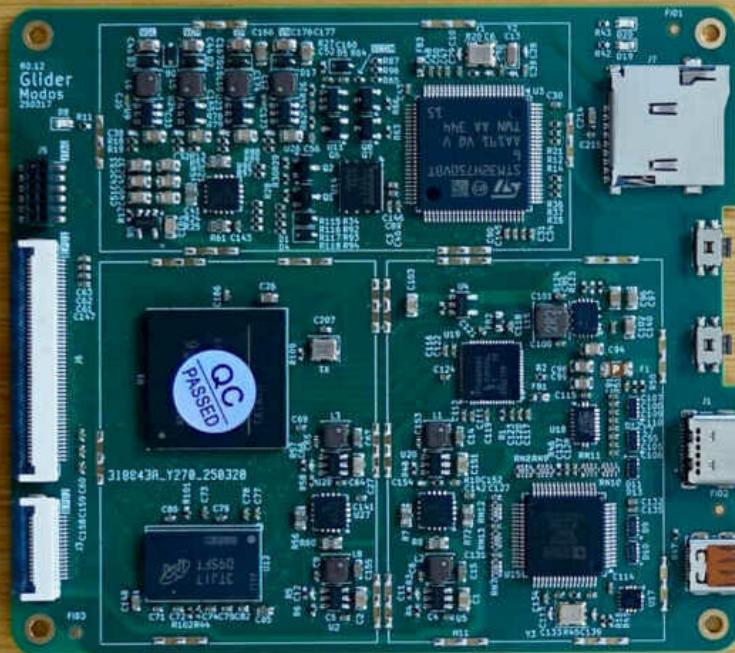
# What is it?

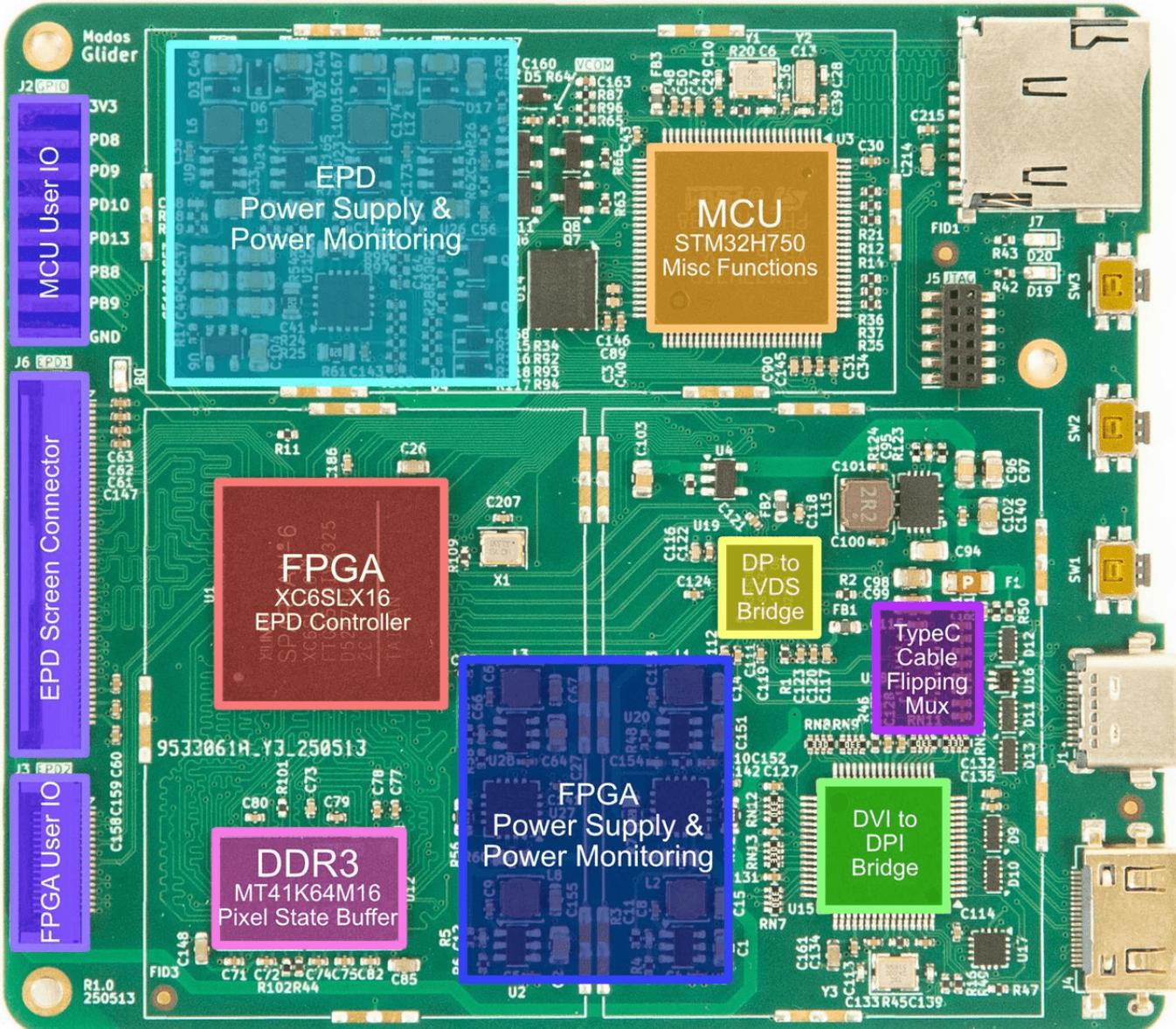
- **Electrophoretic displays** use charged particles suspended in microcapsules to form an image.
  - **Reflective:** They use ambient light like paper
  - **Bistable:** Once an image is drawn, it stays without power
  - Low refresh rates, but **extremely low power draw.**
  - **Monochrome, grayscale, and color variants.**
- Ideal for: reading, writing, and environments with natural light

# Caster is an open-hardware

- High-refresh electrophoretic display controller that supports multiple EPD screens (B/W and color) and supports multiple refresh modes:
  - **Partial refresh** for fast updates with minimal flicker
  - **Grayscale** for image fidelity
  - **Full refresh** to clear ghosting when needed
  - **Fast mono** for high-speed UI feedback







# Glider

Open-source Eink monitor with an emphasis on low latency.

Note: This repo only contains the hardware design, the gateware running on the FPGA is my open-source [Caster EPDC](#) design. This README also contains information about the Caster as well.



This is a long document, containing not just information about this project, but also pretty much everything I know about Eink. Given it's a bit hard to gather information about Eink online, I think this is the right thing to do. Use the following table of contents to navigate around.

Eink is a registered trademark and brand of E Ink Corporation. All the contents provided in this repo are based on publicly available information online and original research. They are not endorsed by Eink in any way and they may contain errors and/ or inaccuracies.

If you're interested in attaining a board, checkout the [product page for the Modos Paper Monitor on Crowd Supply](#).

If you are interested in Eink or any other display technologies, I have a Discord server for that. Feel free to join: <https://discord.gg/rtT7euSHQS>. (This Discord server is also not endorsed by Eink or any other company. It's

## Contributors 3



**zephray** Wenting Zhang



**EdwardBetts** Edward Betts



**davelab6** Dave Crossland

## Languages

● C 99.6% ● Other 0.4%

## Suggested workflows

Based on your tech stack



**CMake based, multi-platform projects**

[Configure](#)

Build and test a CMake based project on multiple platforms.



**C/C++ with Make**

[Configure](#)

Build and test a C/C++ project using Make.



**MSBuild based projects**

[Configure](#)

Build a MSBuild based project.

[More workflows](#)

[Dismiss suggestions](#)

# Who needs this?

- People seeking a balanced digital life
  - Want to reduce screen time, avoid overstimulation, and reconnect with the physical world.
- Those with health sensitivities
  - Suffering from migraines, light sensitivity, eye strain, epilepsy, or other screen-related conditions.
- Designers and technologists
  - Seeking to build humane tools—devices that protect our well-being.



# Building a Maker Community Around an Open Hardware Platform

Fabio Mureddu<sup>1</sup>, Giulio Moretti<sup>2</sup>, Alan Chamberlain<sup>3</sup>, Steve Bowles<sup>2</sup> and Andrew J. McPhee<sup>2</sup>

Centre for Digital Music<sup>1</sup>

School of EEE<sup>1</sup>

Queen Mary University of London, UK

{f.mureddu, g.moretti, a.chamberlain}@qmul.ac.uk

Mixed Reality Laboratory<sup>2</sup>

School of Computing Science<sup>2</sup>

The University of Newcastle, UK

{alan.chamberlain, steve.bowles}@newcastle.ac.uk

## ABSTRACT

This paper reflects on the dynamics and processes of building a maker community around an open hardware platform. We introduce the concept of *platform* and its role in the creation of a maker community from two perspectives: how to conceive the right platform and how to build it. We also present the results of our study of the most prominent platform for makers, the Arduino, and how it has become a community platform for open hardware. We present an analysis of the Arduino community through a study of their communication patterns and their social network. The analysis shows that the Arduino community is a highly connected community with a high level of participation and a low level of polarization. The analysis also shows that the Arduino community is a highly active community with a high level of participation and a low level of polarization.

Keywords: open source, open hardware, community, Arduino, maker culture.

Most studies of maker communities have focused on individual, specific perspectives [8, 14, 20, 22, 30, 31] and have been limited to either broad field surveys or case studies, rarely focusing on the dynamics of a specific platform [4, 14]. In contrast, our work is more specific and concerns the Arduino, the most popular platform for which we performed a detailed study. Our study provides the first detailed analysis of the Arduino community, showing that the Arduino community is a highly connected community with a high level of participation and a low level of polarization. The analysis also shows that the Arduino community is a highly active community with a high level of participation and a low level of polarization.







http://www.xournal.org

Version 0.9.0 - 2010-08-20

## Xournal 1-bit B/W

### Maps

1-bit when updating  
16-bit when static

### Reading Mode

http://www.supertuxkart.org

SupertuxKart is a racing game set in the world of the SuperTux game.  
It's a 2D racing game with physics, featuring the best graphics of its kind. It's available  
on Linux, Mac OS X and Windows. It's free, open source and it's written in C++.

## Terminal 1-bit B/W

### SuperTux Kart 1-bit B/W

### Browsing Mode

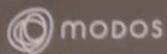
# What becomes possible?

- A new category of devices and user experiences:
  - Computing devices that feel native on e-ink—no flicker, no redraws.
  - Calm computing environments that support focus, reflection, and slower thinking.
  - Minimalist tools for writers, developers, readers, and researchers.





modos

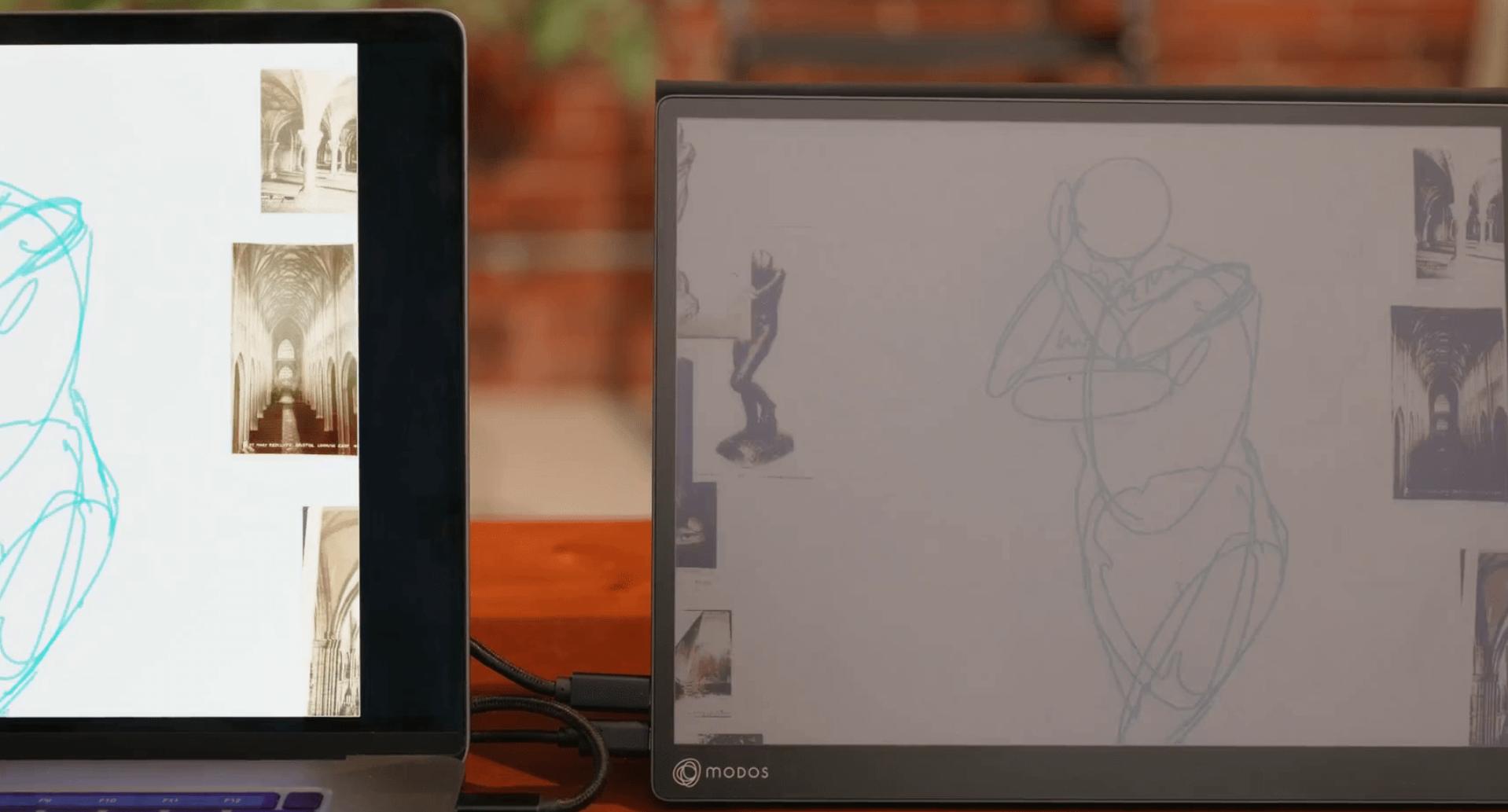












# Join us!

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