

Stepper Master Doc

Authors:

GitBook (Hardware): [Lithography Stepper V2 Build | Hacker Fab](#)

GitHub (Software): [GitHub - hacker-fab/stepper](#)

GitHub Project Tracker: [Stepper](#)

Project Primer:  Hacker Fab - S25 - Stepper Primer

Finalized Proposal: [Stepper Proposal](#)

Project Purchase Tracker: [Stepper BOM](#)

[Schematics](#)

[Specifications](#)

[Build Plan](#)

[Development Log](#)

[Research](#)

[Other Diagrams](#)

Schematics

See [GitBook](#) for hardware schematics and documentation.

See [GitHub](#) for software source code and documentation.

Specifications

Build Plan

Create a step-by-step, week-by-week long term build plan to inspire more granular, short-term tasks that would appear on the Github Project Tracker. This ensures you stay on track towards your established goals.

Development Log

Date	Item	Notes
Jan 30th	(Carson) Redesigning Y and Z mounts to accommodate proximity sensors	Designed a perfboard to convert proximity sensor outputs to 5V logic. I looked into GRBL and it supports homing natively which means that I just need to connect the proximity sensors and enable homing to make it work (?).
Feb 1st	(Sky) Investigating mounting a lens on the unused DLPDLCR3310EVM	Even though it's EOL, the 3310 might be a good testbed for making the Stepper V2 framework work on different base projectors. In order, here's all the things that need to be unscrewed/unclipped to remove the lens:  I measured the dimensions of the lens mounting plate so that I can make another lens that mounts there.
Feb 24	Michael	Measured micron movement on piezo. Did not get "shuffling" to work. Tried to use function generator.
Mar 16	Justin	We have good real-time alignment marker detection. Now to work on aligning to the detected markers!

Date	Item	Notes

Research

For larger projects, it's best to keep subheadings here for organization. Remember to cite all your sources for easy documentation compilation.

Other Diagrams

Place outdated or lower quality diagrams here that have informed your design process throughout the semester.