LRF45 - A large format 4x5 Rangefinder

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VIEW IN BROWSER

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Summary

The LRF45 uses LiDAR and electronically coupled lens to provide a modern, hand-held, large-format rangefinder.

Gadgets > Photo & Video

Tags: camera 4x5 largeformat lidar rangefinder lrf45

This is a camera that's been a long time coming. As far as I know, there's nothing quite like it out there.

The **LRF45** is a mostly 3D-printed camera with a LiDAR-powered digital rangefinder that is electronically coupled to a sensor that reads the lens extension. Which makes this a lens-coupled, hand-held large-format rangefinder. It also has a built-in light meter!

- It is designed for the Fujinon-W 105mm f5.6
- It is compatible with any Graflok film back, even the Lomograflok with some caveats
- The electronics are freely available, affordable, and easy to find
- The viewfinder optics and lens proper are the most expensive parts of this camera, and even those are relatively affordable and easy to procure
- The source code that powers the electronics and rangefinder (as well as light-meter) is open-source and can be found on Github

- There's a detailed build guide in PDF format below
- There's an OrcaSlicer file with all the hard work done for you, but if you want to slice it yourself, all the 3MFs are available as seperate files
- I also provide a STEP file with all the parts if you want to modify or remix the camera to use it with different lenses or formats

I really hope someone out there attempts to build this, and shoot with it. I want to see your makes, as well as your photos!

I have a few example photos on Instagram:

https://www.instagram.com/p/C1C5XITI7D1/
https://www.instagram.com/p/C1MwscKobC5/
https://www.instagram.com/p/C1XakoNo_7q/
https://www.instagram.com/p/C1zOQ6SIrhM/
The light leak in the first three posts has been fixed in the release version.

Model files

OrcaSlicer 1 file

lrf45_orcaslicer.3mf

All models split into platters, with suggested orientation and supports painted in.

3MF 14 files

lrf45-body.3mf

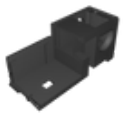
lrf45-back.3mf

lrf45-grip.3mf

lrf45-helicoid-mount.3mf

lrf45-lens-board.3mf

lrf45-rf-cover.3mf



lrf45-rf-body.3mf

lrf45-lidar-mount-cover.3mf

lrf45-elastic-hook.3mf

lrf45-lens-sensor-cover.3mf

lrf45-wire-cover.3mf

lrf45-ground-glass-guide.3mf

lrf45-back-cover.3mf

helicoid-focus-ring-optional.3mf

STEP file 2 files

lrf45-step.step

helicoid-focus-ring-step.step

Other files

lrf45-build-guide.pdf

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