

Project #4: Open-source stereoscopic camera

Idea: Build an open-source stereoscopic camera

For example, see: https://wiki.stereopi.com/index.php?title=Main_Page

Goals:

- Design, implement, and release open-source hardware, image reconstruction software, and an accompanying dataset.
- Document all outcomes and make them publicly available under suitable license.
- Learn about medical imaging.

Difficulty: High

Subjects: open software, open hardware

Deliverables:

- Github repository with source code.
- Documentation, manuals, and results (e.g. as PDF or Github page).

Requirements and costs:

- Hardware
 - Arduino/Raspberry Pi + 2 Cameras
 - Laptop/Desktop PC
- Python, Jupyter Notebooks, conda/pip, Git, basic linear algebra

Milestones:

Estimation:

Bonus:

References:



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