

# Raspberry Pi 5 photogrammetry rig

CAD-031 / REV A / 2026.09.01

Use the Pi as a camera/motion controller and plan reconstruction on hardware suited to the chosen software.

|                |                             |
|----------------|-----------------------------|
| STATUS         | Recovered/Partial           |
| CLASSIFICATION | CAD                         |
| MATERIAL       | CAD / AUTOMATION            |
| DISPOSITION    | PUBLIC / RECOVERED/PARTIAL  |
| CATEGORY       | CAD / Scanning / Automation |
| RECORD TYPE    | how-to                      |

## GOAL

Run the first test described in this guide and record the result for raspberry pi 5 photogrammetry rig.

## SOURCE STATE

New reference guidance; not a recovered test result

## EQUIPMENT

- Scanner / mesh workflow
- Representative test model
- Measurement or inspection method

## METHOD / STEPS

1. Verify Pi 5 compatibility for the selected controller, camera and firmware before buying or wiring parts.
2. Mount the camera and object securely, provide diffuse lighting and power motors through an appropriate driver rather than GPIO pins.
3. Capture each frame only after the mechanism settles. Keep camera settings consistent and preserve original image filenames.
4. Transfer a small set to the reconstruction system and inspect alignment before automating a complete scan sequence.

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## THINGS TO WATCH FOR

A project supporting an older Pi does not automatically support Pi 5. Turntable backgrounds may need masking. Motor vibration and rolling-shutter motion create unreliable geometry.

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## FIRST TEST / WHAT TO RECORD

One automated sweep produces sharp, overlapping images that reconstruct successfully.

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## RESULT / WHERE THIS STANDS

One automated sweep produces sharp, overlapping images that reconstruct successfully.

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## TROUBLESHOOTING

- A project supporting an older Pi does not automatically support Pi 5. Turntable backgrounds may need masking. Motor vibration and rolling-shutter motion create unreliable geometry.

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## SPECIFICATION

|             |                                        |
|-------------|----------------------------------------|
| TOOL PATH   | Scanner / mesh workflow                |
| DELIVERABLE | HOW-TO                                 |
| VALIDATION  | Representative model / known dimension |
| STATUS      | Recovered/Partial                      |

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## DEVELOPMENT HISTORY

2026.09.01 / Rev A

Imported as an independent manifest record; public copy keeps uncertainty visible.

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## REFERENCE NOTES

OpenScan project reference (<https://openscan-org.github.io/OpenScan-Doc/>).

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## HOW-TO SOURCES

OpenScan project reference

<https://openscan-org.github.io/OpenScan-Doc/>

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## RELEASED MATERIAL / SOURCE LINKS

cad-031-public-summary.txt

PUBLIC SUMMARY / RECOVERED NOTES

<https://u225x.com/downloads/manifest-records/cad-031-public-summary.txt>

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## RETURN TO THE LIVING RECORD

### Raspberry Pi 5 photogrammetry rig

This PDF preserves the public notes at this revision. Visit the record for updates and attached images.

<https://u225x.com/record/CAD-031>