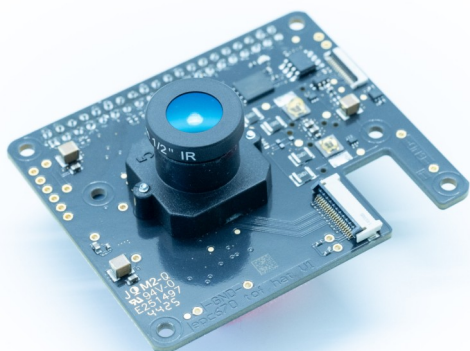




epc670

TOF HAT+

High-Speed 3D camera HAT+

The epc670 TOF HAT+ is a compact, plug-and-play 3D time-of-flight evaluation platform designed to accelerate development with the epc670 imaging chip. It offers the epc670 TOF sensor together with an intuitive graphical user interface and a simple yet flexible hardware setup which can be plugged onto a standard Raspberry Pi 5*. The kit enables rapid evaluation of sensor performance, prototyping of depth-based applications, and development and testing of custom software features. With its easy setup, the epc670 TOF HAT+ significantly reduces development effort and time-to-insight for engineers and system developers.

FEATURES

- | | |
|---------------------------------------|--------------------------------------|
| ✓ Ready-to-use evaluation system | ✓ High ambient light tolerance |
| ✓ High TOF frame rate (up to 175 fps) | ✓ Customizable Rx and Tx Lenses |
| ✓ Sensitivity of up to 8 e-/LSB | ✓ Raspberry Pi 5 standard interfaces |

Hardware

- epc670 TOF HAT+ PCBA
- 940 nm LED illumination (1 × 80°, 1 × 150°)
- Wide field lens (108° × 77°)
- Lens holder with bandpass filter (940 nm)
- Mounting kit for Raspberry Pi

Software

- HAL and Linux device drivers
- TOF processing pipeline
- GUI in Python source code
- API in Python source code



*Remark: Compatibility to NVIDIA Jetson Nano, BeagleBone coming soon.

APPLICATIONS

Access Systems



Mobile Robotics



Activity Monitoring



3D Scanning



Motion Tracking



Traffic Monitoring



KEY PARAMETERS

Parameter	epc670 image sensor
Resolution	320 × 240 pixel
Phase sampling rate	700 fps
Frame rate	175 TOF fps
Sensitivity	up to 8 e-/LSB
Ambient light tolerance	0 .. 100 kLux
Interfaces	22 pins FFC: MIPI CSI-2 over D-PHY, I ² C 2×20 pins header: power and control 16 pins FFC: extension for LED HAT

ORDER INFORMATION

Description	Part Number
epc670 3D camera HAT+ for Raspberry Pi	P101 137

OPTIONAL ACCESSORIES

Description	Part Number
Receiver lens narrow field (32° × 24°)	P100 596
Receiver lens standard field (71° × 52°)	P100 843
Receiver lens ultra wide field (149° × 110°)	P101 156
Lens holder M12, 10 mm height, with 940 nm bandpass filter	P100 163
Lens holder M12, 10 mm height, without bandpass filter	P301 408
Transmitter lens (narrow spot) for LED	P300 755
Stackable 940 nm LED HATs (150° / 80° / 20°)	coming soon

Remark: For best performance, a cooling fan on the Raspberry Pi is highly recommended.

CONTACT INFORMATION

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