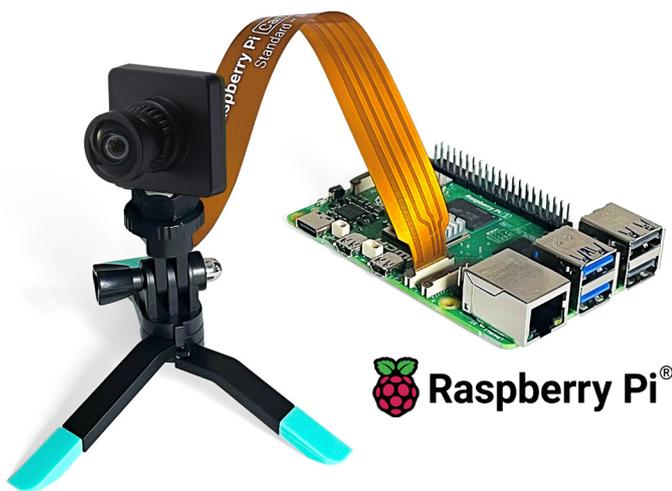


HIGH-PERFORMANCE EVENT-BASED VISION STARTER KIT FOR RASPBERRY Pi 5



# STARTER KIT GENX320 FOR RASPBERRY Pi 5



\* Raspberry Pi 5 board needs to be purchased separately.

SENSOR	
Sensor	Prophesee GENX320
Resolution	320 x 320 px
Event Rate	~10,000 fps equivalent
Latency	<150 $\mu$ s at 1,000 lux, <1,000 $\mu$ s at 5 lux
Dynamic Range	>140 dB
Power Consumption	<50 mW (sensor only)
Interface	MIPI CSI-2 (D-PHY)

CAMERA	
Lens Mount	Interchangeable M12 S-Mount lens holder
Focal length	1.8
Diagonal field of view	76°
Horizontal field of view	58°
Vertical field of view	58°
Focal ratio (f-stop)	f/2.8 Fixed Iris
IR cut filter	No

## FEATURES

- Interchangeable M12 S-mount lens holder
- Complete lensed event based camera board
- 20 cm flex cable MIPI Raspberry Pi compatible output
- Raspberry Pi 5: sold separately at: [raspberrypi.com](https://raspberrypi.com)

### SOFTWARE

- V4L2 Driver
- Open EB: C++/ Python APIs  
<https://github.com/prophesee-ai/openeb>
- Visualization
- Sensor settings (biases), ROI, ERC

### COMPATIBLE WITH METAVISION® SDK5 PRO (OPTION AVAILABLE FOR PURCHASE)

- Source code access including:
- Real-time object tracking
  - Vibration detection
  - Optical flow
  - Active marker detection and tracking

Learn more: [prophesee.ai/SDK5Pro](https://prophesee.ai/SDK5Pro)

## APPLICATIONS

This kit enables untethered, high-speed, low-latency event data collection on embedded platforms, serving as the foundation for developing advanced event-based applications:



### DRONES:

- Detection and tracking
- Obstacle avoidance
- Real-time SLAM
- GPS-denied navigation

### INDUSTRIAL & IoT:

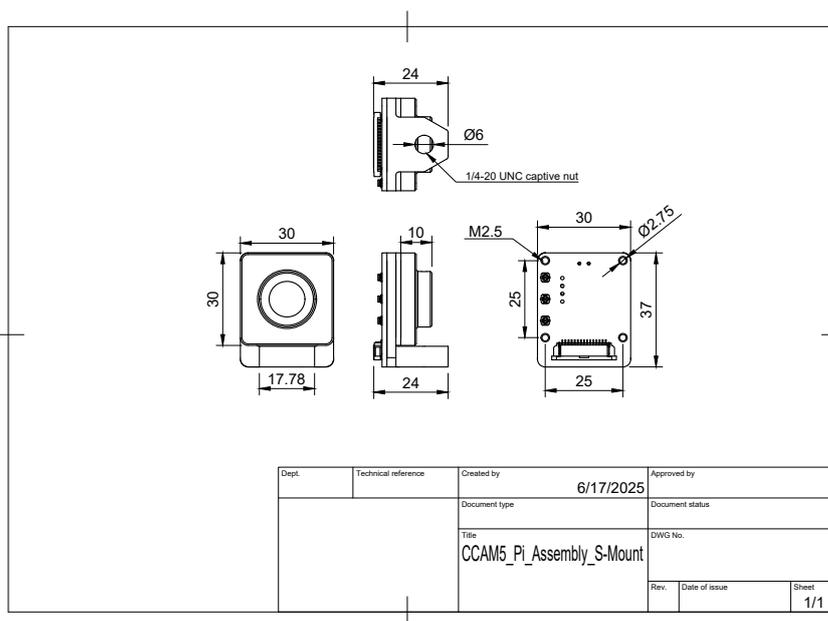
- Vibration monitoring
- Spatter tracking
- High speed defect detection

### SURVEILLANCE:

- Fall Detection
- Intrusion Monitoring

...and many others.

## PHYSICAL SPECIFICATIONS



## DESCRIPTION

The STARTER KIT GENX320 for Raspberry Pi 5 is a compact and powerful embedded vision development platform designed to unleash the capabilities of event-based sensing on the Raspberry Pi 5. Built around Prophesee's GENX320, the world's smallest and most power-efficient event-based vision sensor, this kit enables the development of real-time, ultra-low latency applications for robotics, drones, industrial automation, and more. It provides a streamlined path to rapidly develop, test, and prototype custom applications, making it an ideal solution for engineers and researchers looking to harness the benefits of neuromorphic vision.

## RASPBERRY Pi 5: HOST PLATFORM REQUIREMENT

Recommended SKUs/Accessories for best performance:

**PI5 MODEL B/8GB:** <https://www.raspberrypi.com/products/raspberry-pi-5/?variant=raspberrypi-5-8gb>

**SC1148:** <https://www.raspberrypi.com/products/active-cooler/>

**SC1153:** <https://www.raspberrypi.com/products/27w-power-supply/>

**SC1675:** <https://www.raspberrypi.com/products/ssd-kit/>

## ORDERING CODES

**PSKX320MPCOBRPI5 - STARTER KIT - GENX320MP-COB RPI 5**

<https://www.prophesee.ai/event-based-metavision-raspberrypi5-genx320-starter-kit/>

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