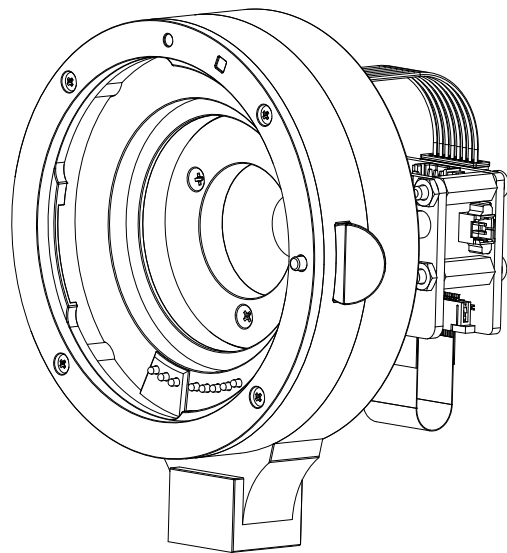
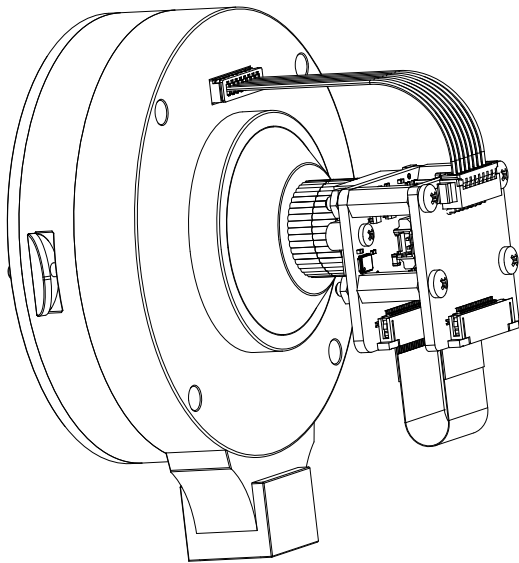


# EF / EF-S Lens Controller & Adapter for Arducam® IMX708 Camera Module (Canon® Lens Compatible)

Bring autofocus and aperture control to your Canon EF / EF-S lens on Arducam IMX708 Camera Module – seamless integration with *libcamera* and *rpicam-apps*.



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\* Raspberry Pi is a registered trademark of Raspberry Pi Ltd. This product is not affiliated with or endorsed by Raspberry Pi Ltd.

## Overview



The solution allows you to mount Canon EF or EF-S lens onto the Arducam IMX708 Camera Module and have features like autofocus and aperture control available in *rpicam-apps*, *libcamera* or V4L2 (Video4Linux2) API from the Raspberry Pi.

## Product Highlights

- **EF/EF-S Lens Compatibility**  
Supports Canon EF and EF-S lenses for photography and video applications.
- **Autofocus**  
Automatic focus control through *libcamera*.
- **Aperture Control**  
Control lens aperture using the V4L2 (Video4Linux2) API from the Raspberry Pi.
- **Seamless Software Integration**  
Operates directly with *rpicam-apps* and *libcamera*, no custom code required.
- **M12 Mount**  
Designed to physically and electronically interface with the Arducam IMX708 (SKU B0310), IMX519 (SKU B0449), IMX477 (SKU B0452), IMX462 (SKU B0444) Camera Modules (M12 Mount variant) that feature **22 pin CSI connector** (top side).
- **Compatible with all models**  
It is compatible with all models of Raspberry Pi computer that use the latest software.
- **Maker-Friendly**  
Ideal for Raspberry Pi enthusiasts, developers, and camera projects needing pro lens features.

## Technical Specification

Power	+3.3V, either through camera CSI connector or serial cable +5.0V through RPI GPIO header
Camera Serial Interface	CSI-2 Cable: 22-pin FFC/FPC
Communication Interfaces	I2C (3.3V) Serial / UART (3.3V) Connectors: Molex PicoBlade, 1.25mm pitch
Dimensions	Adapter: 66 x 32 mm Control board: 25 x 24 mm
Camera mount	M12-mount
Lens mount	Canon EF or EF-S
Adapter Material	Plastic housing with metal components
Durability	Rated for repeated connect/disconnect cycles

## Application

- Digital Imaging
- Aerial Imaging
- Industrial Applications
- Surveillance and Security
- Traffic Monitoring

## Software Support

Detailed assembly and setup instructions are available in our GitHub repository: <https://github.com/pinefeat/cef168>



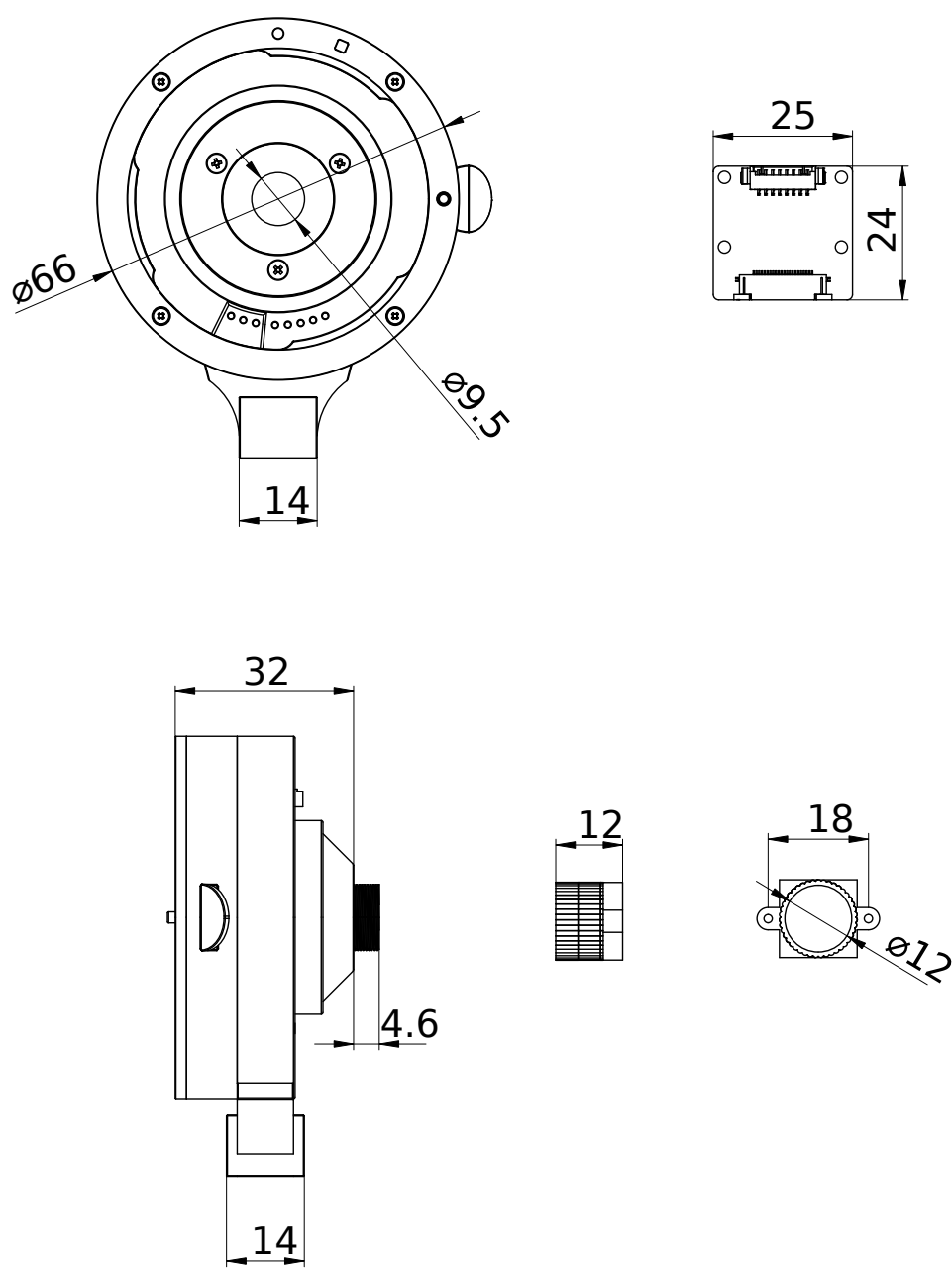
## Compliance

- Electromagnetic Compatibility Directive (EMC) 2014/30/EU
- Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU

## Package Contents

- 1) Canon EF / EF-S lens to M12-mount camera adapter
- 2) The lens control board
- 3) M12 lens holder
- 4) Flex camera cable
- 5) 8-wire lens cable
- 6) 2-wire power cable
- 7) Accessory kit: standoffs, screws, and nuts

# Physical Specification



Note: all dimensions in mm

## Warnings

Whilst in use, this product should be firmly secured. For lightweight setups, use the tripod mount on the adapter to attach the product to a stable support, such as a tripod, stand, or other compatible mount, ensuring proper alignment and stability. For heavy lenses, the built-in tripod mount may not provide sufficient support. Instead, use a Tripod Mount Ring around the lens to properly balance the weight and prevent strain on the adapter.

The connection of incompatible devices other than Canon EF / EF-S lenses and Arducam IMX708 Camera Module may affect compliance, result in damage to the unit, and invalidate the warranty.

All peripherals used with this product should comply with relevant standards for the country of use and be marked accordingly to ensure that safety and performance requirements are met.

## Safety Instructions

To avoid malfunction or damage to this product, please observe the following:

- Ensure you follow the assembly guide carefully.
- **Important:** Before connecting this device, shut down your Raspberry Pi computer and disconnect it from external power.
- This device should be operated in a dry environment at 0–50°C.
- Do not expose to water or moisture, or place on a conductive surface whilst in operation.
- Do not expose to heat from any source; the adapter and the control board are designed for reliable operation at normal ambient temperatures.
- Store in a cool, dry location.
- Avoid rapid changes of temperature, which can cause moisture to build up in the adapter.
- Take care not to fold or strain the ribbon cable.
- Take care when screwing in parts or fitting a tripod. A cross-thread can cause irreparable damage and void the warranty.
- Take care whilst handling to avoid mechanical or electrical damage to the printed circuit board and connectors.
- Whilst it is powered, avoid handling the printed circuit board, or handle it only by the edges, to minimise the risk of electrostatic discharge damage.

## Warranty

This product is covered by a 1-year warranty against manufacturing defects. For warranty claims or support, please contact us.



## Manufacturer

Pinefeat LLP

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## Contact Details

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Note: Product specifications are subject to change without notice