EF Lens Controller

USB-C controller allows control of focus, aperture and stabilization for **Canon EF** lenses with USB, UART and Wi-Fi control interface.

illunis

For illunis EMC Cameras

Standard M58 Mount

The illunis EFLC lens controller for Canon EF lenses controls aperture, focus and image stabilization. The EFLC can operate as a stand alone device powered though USB-C, or as an embedded device using a UART. A wireless Wi-Fi interface is also provided.

The EFLC can dynamically detect lens attachment and removal, as well as identify the lens name, focus, iris, serial number and zoom information. The EFLC is available as an OEM module for integration into any camera system requiring control of Canon EF Lenses.

illunis EFLC Highlights:

- Second generation design with 32bit microprocessor
- Official EF protocol, not reverse engineered.
- USB, UART and Wi-Fi interface with embedded web page controls.
- Aperture detection and control in 1/8 F-Stop increments.
- Focus detection and control at lens internal encoder level.
- Image stabilization detection and activation.
- Internal EEPROM available to the user (1K).
- Save and restore lens control, aperture and focus positions.
- Human readable and machine compatible command sets.
- Machined CNC lens bayonet.
- Locking retention pin with set screw.
- Wireless remote control available.
- Sample Windows control application and SDK.

illunis EFLC Specifications

Compatibility	All Canon EF Lenses
Aperture	Range Read from lens, controllable in 1/8 F-stop increments. Move aperture absolute, F-Stop, incremental, 1/8 Stop, end points.
Focus	Range Read from lens, controllable in lens encoder increments. Move focus incremental, absolute, end points, steps, percent, cm.
Lens Commands	Status, SN ,Name, Info, 8 Aperture, 12 Focus, 1 Zoom, 5 EEPROM, Save and restore aperture and focus.
Power	USB or externally powered.
USB Compatibility	Type-C connector. Screw Locking
USB Driver	Built into Windows.
User USB Interface	Serial COM 115,200 baud (fixed).
OEM Interface	USB, UART.
Power Options	USB (5.0V VBUS). UART : 5.0V.
Camera Interfaces	illunis EMC, M58, OEM.
Flange Focal Distance	44.0mm.
User EEPROM	1K Bytes.
Lens Mount	CNC EF mount.
Custom Mounts	Available. Please Call.
Embedded Option	Bare board, custom design.
Field Programmable	Boot Loader installed.
Control Ring	Assignable to Focus or Aperture.

Applications

Auto Focus
Digital Imaging
Inspection
UAVs and Drones
Industrial applications
Surveillance and security
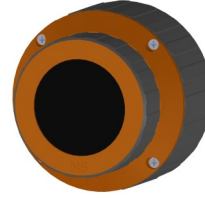Traffic

Eliminate Z-Focus Stage
Defense and Space
Medical
Scientific
Astronomy
OEM Applications
Documentation and Print

Contact Information

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Wireless and Web Page Control

Wireless controller with 1.28" TFT LCD touchscreen and rotary encoder. Battery powered with USB-C charging.

illunis EF Lens Controller

Lens Name: EF50mm f/1.8 STM
Controller Serial Number: 1
Software Revision: Version: 6 Rev: 0

Controller Test   Save Lens Settings   Restore Lens Settings   Refresh

Focus Settings:

Zero   -1k   -100   -10 | +10   +100   +1k   Infinity

Iris Settings:

Open   <---   <--   <- | ->   -->   --->   Close

Lens Zoom:
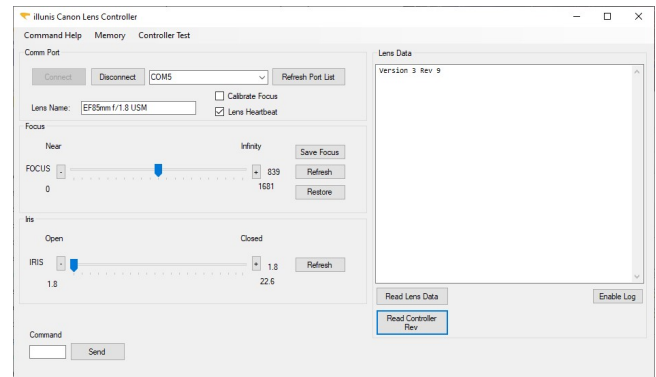Zoom Min: 50 | Zoom Max: 50 | Current Zoom: 50

Image Stabilizer:
Status: Off

Embedded wireless web page control of all features.

Software

The EFLC comes with our free lens control software. Windows-10/11 64bit compatible; Python and C source available.

illunis specializes in custom applications and OEM designs.

A Canon RF Controller is available.