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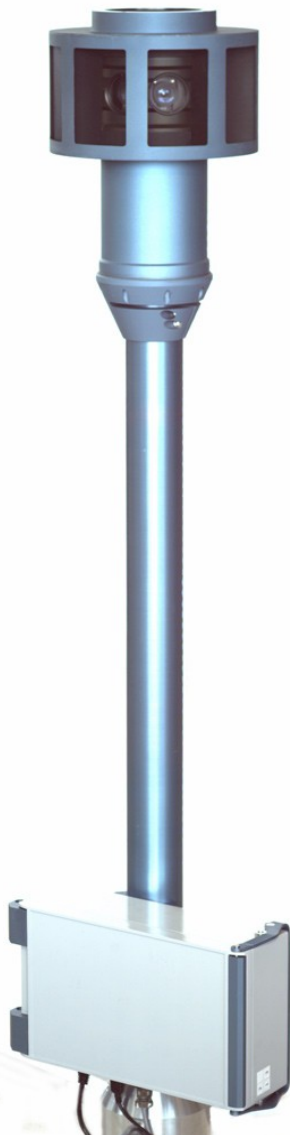
Elphel Eysis

highly customizable 9 Camera 360° Panoramic Imaging System

Introduction

The *Elphel Eysis* Panoramic Imaging System is powered by 100% free software and open hardware. We actively pursue the users freedom to use, modify and share our hard- and software for any purpose with the GNU GPL. All documentation is also available under the GNU FDL.

Technical Specs



- 8 Color 5 Mpix CMOS sensors in array
- 1 Color 5 Mpix CMOS sensor pointing upwards
- Resolution - 38MPix (45MPix before stitching)
- Up to 5 FPS at full resolution
- Up to 11 hours of recording at full resolution / max frame-rate
- 100% free software and open hardware
- Web-based GUI
- GPS powered geo-tagging
- Total power consumption - 50W
- Precise image capture synchronization
- RAW or compressed image formats
- 3 swappable 2.5" SSDs
- 9 High Resolution Lenses
- Very small parallax - distance between entrance pupils: 29.5 mm

* GPL Discounts available



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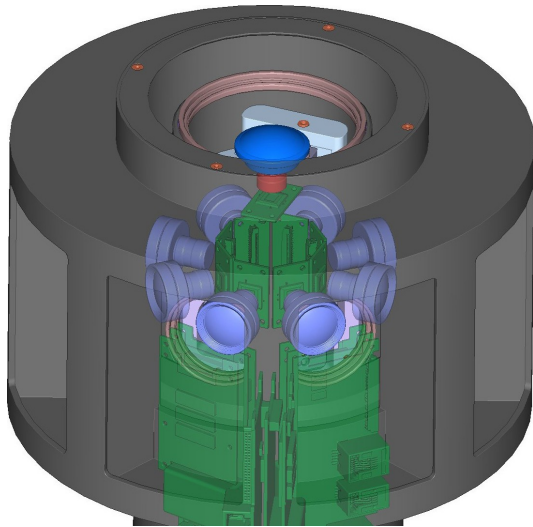
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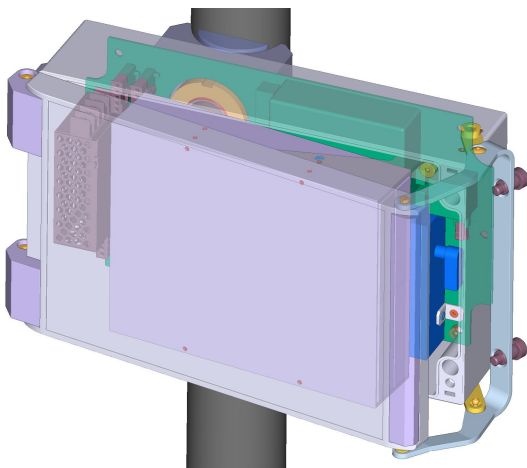
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Details



Camera Head

- Weatherproof
- 9 sensor frontends
- 3 processor boards
- 8 horizontal pointed lenses:
f=4.5mm F=1.8
- Fisheye lens for top sensor:
f=2.0mm F=2.0
- Dimensions - 210 x 210 x 332 mm

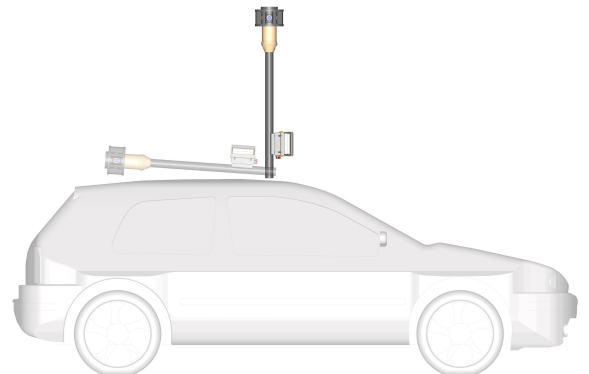


Camera Pole

- Aluminum pipe - customizable length
- 60 mm diameter

Data Storage

- Weatherproof (IP68 connectors)
- 3x SSD (2.5") swappable
- Power supply with 110/230V AC
- Gigabit Ethernet Switch
- USB connector (IP68) for GPS receiver
- Dimensions - 280 x 120 x 170 mm





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Eysis Computer

- Small form factor Shuttle PC
- Intel Core i7-950 Quad-Core Processor
- 16 GB DDR3 RAM
- GeForce GTX (Fermi) 1GB
- 2 TB HDD
- Same 2.5" drivebays as Eysis Data Storage Box to load SSDs

Software Development Kit

- Eysis GUI - Recording Software with real time previews
- movie2dng and Dcraw - extraction of JP4 images from MOV and conversion to DNG/JPEG
- Hugin tools for panorama stitching

The screenshot displays the Elphel Eysis GUI interface. At the top, there are four camera feeds labeled 'left', 'front', 'right', and 'rear'. Below the feeds are three histograms corresponding to the camera views. The interface includes control buttons for 'Get previews', 'RECORD', and 'STOP'. A configuration panel on the left shows network settings for three cameras (IPs: 192.168.0.221, 192.168.0.222, 192.168.0.223) and an update interval of 5 seconds. On the right, there are two data tables. The first table shows camera status for three cameras, all with 'on' status and 'stopped' state. The second table shows buffer status for three cameras, all with 'free' status. A 'Clear' button is located at the bottom right of the buffer status table.

N	t, °C	camogm status	camogm state	File size, MB	partition free space, GB	mount point (0-7)
1	31	on	"stopped"	0	unmounted	/var/0
2	31	on	"stopped"	0	unmounted	/var/0
3	31	on	"stopped"	0	unmounted	/var/0

N	Buffer (important when recording)	Frame size, KB	Quality, %	Camogm last error code	Camogm log
1	free	2558	97		log
2	free	3169	97		log
3	free	3117	97		log