A.I. CAMERA ROBOT SYSTEM
RD-1003

ROBODOP (RD-1003)
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Seervision robots feature cinematography control algorithms designed in the world-leading automation and control laboratory of ETH Zurich. The person recogntion and identification pipeline is built upon state-of-the-art neural networks and makes sure that every robot is robust to the appearance of multiple people and oclusions, always keeping track of the person of interest. Optimization techniques and predictive algorithms are used in order to produce a smooth continuous tracking for a variety of situations varying from conferences to sport events.

Each system consists of a remote head, three lens motors and a powerful processing unit in a 2u rack.

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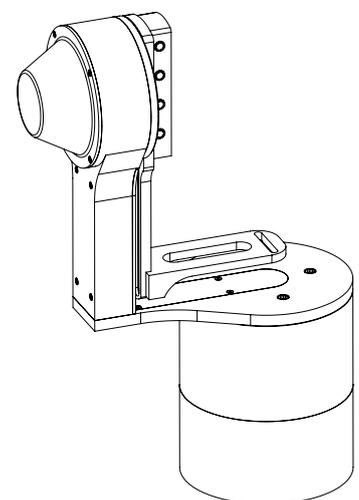
HEAD	
Size (h/w/d)	480 x 257 x 158 mm
Weight	6.5 kg
Payload	15 kg
Supply	220V AC (48V DC)
Range	360° pan, +/-60° tilt
Max speed	180° / sec
Min speed	0.02° / sec
Resolution	< 0.0002°
Noise	completely silent
Connections in base of head	SDI in/out, Power, RJ45 to processing unit

The robotic head included in the autonomous cameraman solution is one-of-a-kind. It is the most versatile and accurate, fully silent pan-tilt head, suitable for any type of production ranging from operas and theaters to highly dynamic sports. With integrated controllers and lens motor cabling, it is the most elegant robotic solution for any mobile or static production. It can be mounted on tripods, rails or jibs and fits most professional broadcast cameras (e.g. Grass Valley) but also all other cameras (URSAs, C300, RED, etc)

LENS MOTORS	
Size (h/w/d)	85 x 50 x 35 mm
Weight	120 g
Supply	24V (through the cable from the head)
Max speed	360° / sec

Our custom lens control units are also extremely accurate and absolutely silent. They can adjust focus zoom and iris with submillimeter precision on the lens ring, outperforming the accuracy of any camera operator. At the touch of a single button the units automatically determine soft and hard limits on a lens ring while mapping them to absolute lens parameters such as opening angle, focus plane and aperture.

PROCESSING UNIT	
Size	2U compact rack
Weight	10 kg
Software	SV4RD-1003
Connections	RJ45 to Head SDI in (25 to 60) fps 1080 SDI loop through RJ45 to Interface PC

A compact 2U rack mount computer is included in the solution. Featuring the latest generation intel processor and NVIDIA GPU, the computer is used to run our automation software in full harmony with the robotic head and motor units. When not used in a production, this baby is powerful enough to drive an autonomous car.

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