EvoRobot

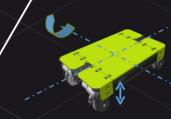
Any size from

Highly accurate and markerless positioning system

Positioning deviation < 1 mm

Localization

2D-Camera observing floor



Integrated leveling and lifting system

Versatile mounting platform on top



Modular omnidirectional drive



400 x 480 to

800 x 1200 mm

RoboCup contest configuration 400 x 480 mm and 2 x LIDAR

Basic Features:

Speed: 1 m/s

Powertrain: 4 x FAULHABER DC-Motor 60W

Sensors: High Resolution Incremental Encoders

Payload: Up to 120 kg (depends on configuration)

Battery Type: LiFePo4

Endurance: About 8 h (depends on configuration)

Material: Stainless Steel & Aluminium Frame

Variable Size: From 400 x 480 to 800 x 1200 mm

Weight: About 35 kg (depends on configuration)

SW Interface: ROS (Robot Operating System)

Data Interfaces: USB3.0, Ethernet, HDMI

Optional Features:

Lifting: 2 or 4 Lifting Cylinders with Encoders

Positioning: Evocortex Localisation Module (ELM) for

localization and highly accurate positioning with a deviation of less than $1\ \text{mm}$ over an area of $1\ \text{km}^2$ without any requirements to

the environment like markers or lines

1 - 2 x LIDAR: SICK || Hokuyo || RPLIDAR || Custom

Mounting Platform: Groove Profile | Aluminium Cover | Custom

Processing Unit: NVIDIA® Jetson™ TX2 || Siemens Safety PLC

Motorcontroller: evoDC-Motorshields | | Siemens SIMATIC MICRO DRIVE

Add. Software: evoLocalizer | | evoSLAM | | evoELM



& SENSOR FUSION

CoBot configuration with space for manipulator -> 455 x 700 mm

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