

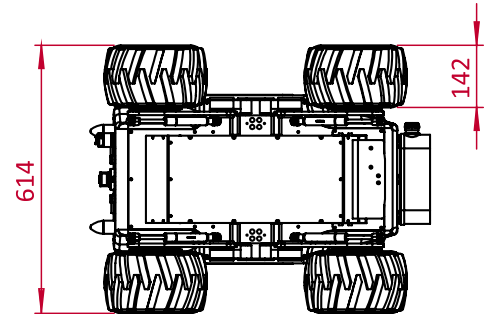
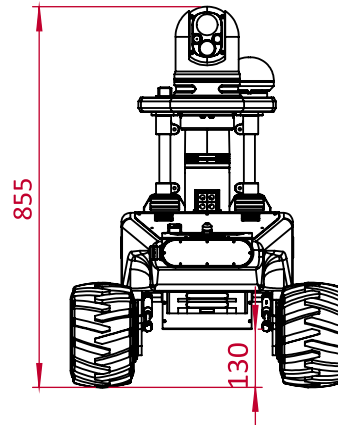
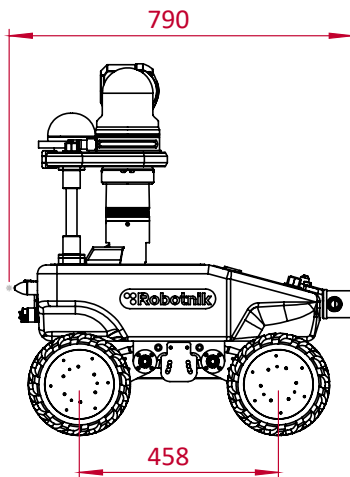
# RB-WATCHER



**SURVEILLANCE**  
& **SECURITY**



INDOOR & OUTDOOR  
PRECISION  
RELIABILITY  
AUTONOMOUS  
FREE NAVIGATION



## TECHNICAL SPECIFICATIONS

### MECHANICAL

#### Dimensions

- 790 x 614 x 856 mm

#### Weight

- 73 Kg

#### Payload

- 50 kg

#### Maximum speed

- Up to 2.5 m/s

#### Target environment

- Outdoors and Indoors

#### Autonomy

- Up to 5 hours continuous operation

#### Traction motors

- 4 x Brushless servo motors 500W

#### Operating ambient temperature

- Temperature range -10° to +45°C

#### Ground clearance

- 130 mm

#### Contact charging

- Up to 1000 W

#### Battery

- LiFePO4 pack 15Ah@48V"

#### Chassis

- IP 54

#### Wheels

- Rubber wheels

#### Platform

- SUMMIT-XL 48 V

### NAVIGATION SENSORS

#### Front depth camera

- Depth up to 1280x720 (90 fps)
- RGB up to 1920x1080 (30 fps)

#### Inertial Measurement Unit

- Magnetic Heading Accuracy: 2.0°
- Gyro In-Run Bias Stability: 5-7°/hr (typ.)
- Onboard Extended Kalman Filter: 400 Hz
- Rugged
- Pitch/Roll Accuracy: 0.5°
- Accel In-Run Bias Stability: < 0.04 mg
- IMU Data: 800 Hz

#### RTK GPS

- Centimeter level precision (<1cm with NTRIP up to 35km)
- Converge time <10s

#### LIDAR 3D

### LOCALIZATION

#### Multiple localization technologies, suitable for every specific environment and application

- 3D SLAM
- 2D SLAM
- RTK GPS

#### Static & Dynamic path planning with collision detection and avoidance

### INSPECTION SENSORS

#### Bi-spectral Pan-Tilt-Zoom Camera

- Thermal: 640x480, -20°C ~ +550°C (± 2°C or ± 2% of reading), Zoom x4
- RGB: 1920x1080@30fps, Optical Zoom x30
- Pan Range 360° continuous
- Tilt Range -20° ~ 90°

#### Microphone

- Sensitivity: -22 dB ±3 dBa
- Frequency: Within 20 Hz - 20 kHz
- Max SPL: 126 dB
- SNR: 82 dB A-weighted

### COMMUNICATIONS

#### Router 4G

- 4G LTE CAT 6
- DUAL SIM
- WiFi & Bluetooth
- Gigabit Ethernet

#### Optional Router 5G

- SA & NSA architectures
- Backward compatible with 4G (LTE CAT 20) and 3G network technologies

#### Optional Smart Radio

- Low Latency Mobile Mesh
- Multiple Bands and Multiband
- Max Throughput: 80 Mbps
- Range: 10+ kilometres