



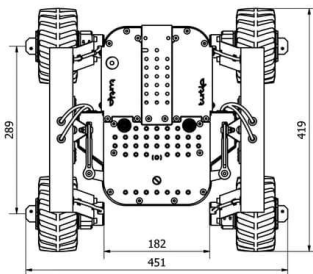
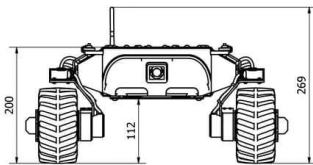
outdoor Robotics Development Kit.

Designed to be reliable, watertight and extendable.

[DOCS.LEOROVER.TECH](https://docs.leorover.tech)

[GITHUB.COM/LEOROVER](https://github.com/leorover)

Size and performance



Size

Weight: 6,5 kg

Dimensions:

410x460x270 mm

Payload capacity: 5 kg

Upper platform mounting dimensions

Dimensions: 299 x 183 mm

Hole grid: 18 x 15 mm

Holes: 40 x Φ 7mm + 22 x Φ 5,5mm

Performance

Estimated maximum obstacle size: 70 mm

Protection rating: complies with IP66 (not certified)

Run time: Estimated 4 hrs of nominal driving

Connection range: Up to 100m (with live video stream)

Wheels

Motors: 4 x in-hub DC motor with 73.2:1 planetary gearbox and 12 CPR encoder

Wheel diameter: 130 mm

Tire material: rubber with foam insert (non-pneumatic)

Battery

Voltage: 11.1 V DC

Capacity: 5000 mAh

Type: Li-Ion with internal PCM

Short-circuit, overcurrent and overdrain safety features

Max. current: 8A (total for the whole Rover)

Camera and network

Camera

Camera resolution: 5 MPx

Lens: Fisheye with 170 deg field of view (IR non-filtered; night-vision allowed)

Network

WiFi 2.4 GHz access point with external antenna

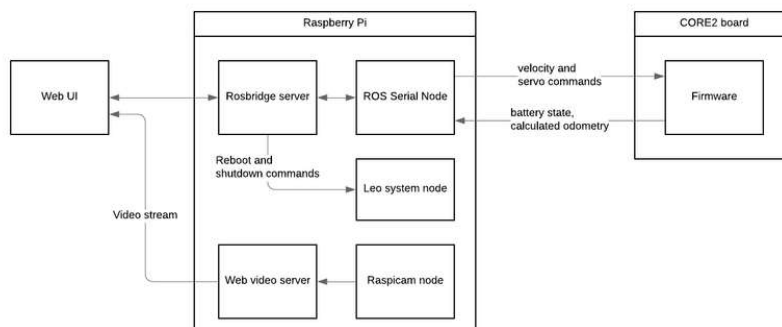
WiFi 2.4 GHz + 5 GHz on internal RPi antennas for connectivity

Software

Operating system: Ubuntu 16.04 + Robot Operating System

Ready-to-go UI located under '10.0.0.1' when using standard Leo Software Image.

Firmware based on hFramework - open source programming framework.



Electronics

RaspberryPi 3B+ or 4B as main computer

Core2-ROS as real-time microcontroller: STM32F4 (@168MHz, 192KB RAM, 1MB Flash)

Connection interfaces

Externally available

- 1x waterproof microUSB socket
- 1x antenna RP-SMA male socket
- 1x 3-pin Weipu SP13 12V power socket

Internal open interfaces

6 x servomotor interface with built-in DC/DC converter (selectable multiple voltage level)

4 x UART

3 x I2C

1 x SPI

1 x CAN

13 x ADC

8 x interrupt input

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+ RaspberryPi's: 2x USB, 20x GPIO, RJ45 Ethernet, 1x RPi display port, Bluetooth 5.0 with BLE

Controller

You need any web-enabled device to access stock UI under '10.0.0.1' in your browser.

Device requirements: Windows/Linux/Android/macOS

For easier development ROS on your device is highly recommended.

3D model preview

(takes time to load)

To download:

<https://a360.co/38g5v>

FAQ

- ✓ How long does it take to assemble the Rover?
- ✓ Do I need to buy anything other than Dev Kit to built the R
- ✓ What tools and knowledge do I need to assemble the Rove
- ✓ Can I write my own software to the Rover?
- ✓ Is the Rover autonomous?

LEARN MORE ON HOW TO DEVELOP ON LEO ROVER ->