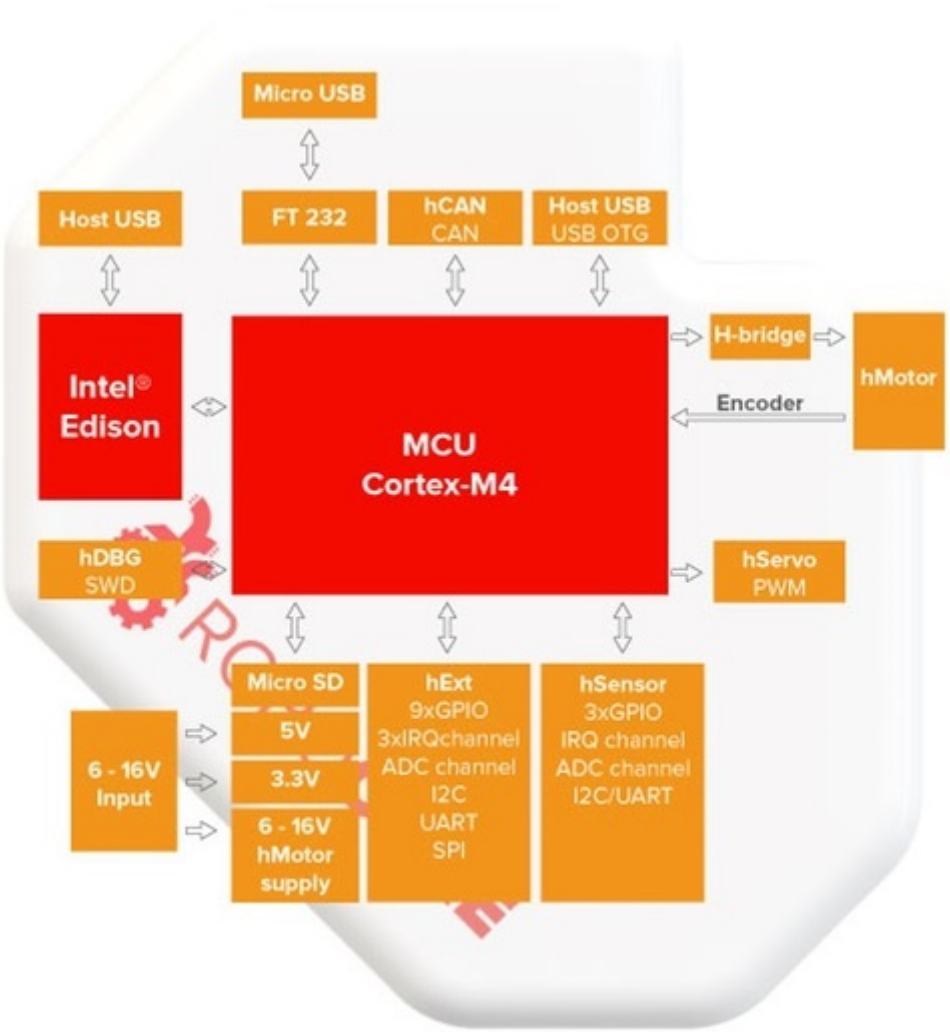
What is RoboCORE?

RoboCORE is a cloud-powered device and development platform that is the heart of your new DIY robots for professional or hobby use.

You can now build personal robots from scratch without high programming skills and at an affordable price. RoboCORE gives you the hardware and software to build almost any robot you can imagine. What's more, it’s not dependent on any particular mechanics system, so you can use simple metal constructions, as well as LEGO® bricks.



You can also connect your smartphone or USB camera to RoboCORE in order to unlock some cool telepresence features. RoboCORE is not just a driver, it’s a whole ecosystem. It allows you to create advanced constructions for anyone. Stretch your brain cells, develop the passion and discover the new opportunities. You’ve got your own personal computer, now it’s time for your personal robot. Share our passion for robotics!

Specification

Parameter	Description
Microcontroller	32-bit Cortex-M4, 168MHz, 1MB Flash, 192KB RAM, 210DMIPS

Parameter	Description
Supply voltage	6 - 16V
Dimensions	126 x 114 x 27mm (with casing)
Weight	151g
Output ports type	6 hMotor outputs with H-bridges and quadrature encoder interface
Output ports parameters	1A average current, 2A peak current, PWM 100...22000Hz
Input ports type	5 hSensor inputs with 2x GPIO + ADC + ext. interrupt input
Input ports parameters	3.3V/5V tolerant GPIOs, 12-bit ADC, 5V output for sensor supply
Extension ports	2 hExt ports with GPIO, ADC, SPI, I2C and USART interfaces
Connectivity	CAN, USB Full Speed Host, Serial port with FTDI and micro USB connector, microSD card slot, SWD debugger interface
Connectivity with Intel Edison	the same as above + Wi-Fi + Bluetooth + USB 2.0 Host + audio output

What can I do with RoboCORE?

Our hardware was designed to:

- make both autonomous and remotely controlled constructions;
- control the attached motors and modules;
- collect and use measurement data from the sensors;
- communicate with the outside world via Wi-Fi and Bluetooth.

There are many different scenarios for using RoboCORE – building telepresence robots, driving, swimming or manufacturing devices.

See also our **Kickstarter** campaign page:
RoboCORE: the heart of your personal robot