

# EnginoBot

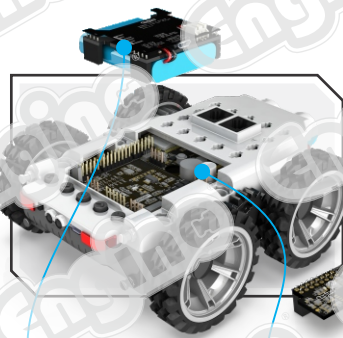
E49.1 / E50.1 / E51.1

Basic Edition

Advanced Edition

Professional Edition

## USER MANUAL



With a rechargeable battery module

Connectivity to extra add-on sensors such as Sound, Gyro & Magnetometer

Specially designed rims with grooves for crawler tracks

2 x RJ connectors to expand with extra motors & sensors

Removable cabin to access the PCB and connect extra hardware

Option for Arduino® connectors for open source electronics & programming

Removable tires to convert to cat-trucks

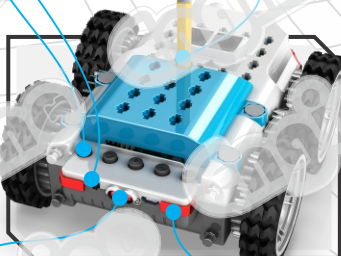


Removable wheels to connect other parts and create models such as the Hexapod

5 x Buttons for manual programming to move and turn. Also store and play programs

Pencil/Pen holder to draw lines

On-Off switch



1 x Proximity sensor to detect obstacles while moving backwards

2 x Programmable multi colour LED lights

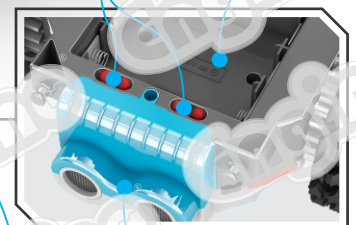
Gears to transfer motion from main motors to all wheels, leading to a 4-wheel drive vehicle

2 x Proximity sensors, one at each corner to detect obstacle

2 x Programmable multi-colour LED lights

Battery compartment for 3xAA batteries

2 x Proximity with colour sensors on the bottom to follow line



Built-in Engino geometries to connect more parts and create larger models

Removable cover to easily replace the ultrasonic sensor

Ginobot Body					
Basic	ROB (ultrasonic)	EDU (ultrasonic and LiPo battery)	Mechanical Parts	PCB adaptor	Expansion board
E49	✓				
IN 90	✓		✓		
ROB10				✓	
E50		✓		✓	
E51		✓	✓	✓	✓

### Ginobot upgardees and add-ons

Mechanical Parts	Expansion board	PCB adaptor	Dual proximity/ color sensors	Ultrasonic Sensor	LiPo Battery
E52	✓	✓	✓		
E53				✓	✓

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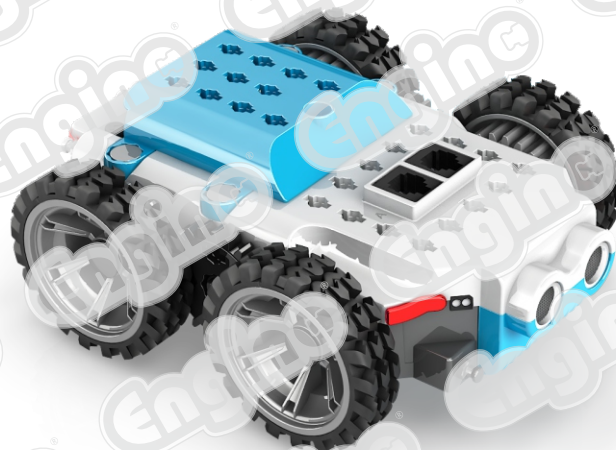
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# User Manual

## MEET THE GINOBOT™

GINOBOT™ is a highly programmable robot ready to be used straight out of the box. Developed by a combination of engineers and academics, GINOBOT™ is a neat tool for teaching STEM disciplines, computational thinking and digital literacy with fun and hands-on experience activities.

GINOBOT™ is the robot that helps you explore divergent projects in a broad range of levels. It has literally unlimited expansion potential since it allows the attachment of add-on 3rd party electronics and hardware like a Raspberry Pi, Arduino, and micro:bit. Besides its internal sensors and its expandability with 3rd party electronics, the body of GINOBOT™ is also compatible with the Engino building system to construct larger and more sophisticated robots.

### From Plug-&-Play robot...

The innovation of GINOBOT™ lies within its core design. It is expandable and adaptable to a very broad range of features to match the classroom needs of different ages. Plug-&-play robots are commonly used in pre-school and early primary classrooms in order to teach algorithmic and computational thinking. GINOBOT™ is an ideal plug-&-play robot since it allows manual programming and wireless control that allows teaching the fundamental steps of programming.



### ... To high-end coding and electronics

The upgrade potential of GINOBOT™ is essentially unlimited due to its compatibility with microcontrollers such as Arduino, Raspberry Pi and micro:bit. Teaching real programming languages such as C/C++ and Python can easily be adopted in a classroom, while maintaining fun, entertainment and motivation to the students. The advantage of working in open projects becomes materialized with a single holistic solution which can encompass the needs of different electronics and applications.



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