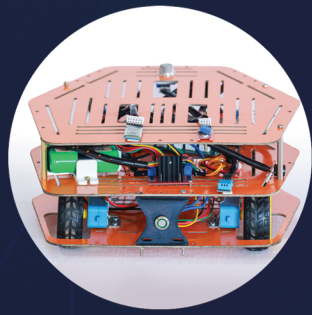
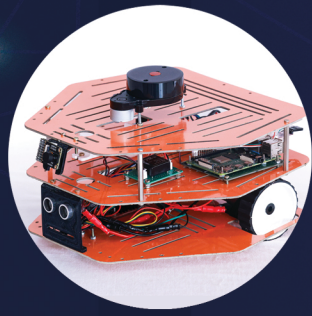


CHELONIA B1

Controller: Arduino Mega
Motors: BO Motors with Metal gear
Sensors: IR, Ultrasonic, smoke sensor, temperature sensor, IMU etc.
Communication: Bluetooth

CHELONIA B2

Controller: Arduino Mega
Motors: BO Motors with Metal gear mechanum wheels
Sensors: IR, Ultrasonic, smoke sensor, temperature sensor, IMU etc.
Communication: Bluetooth



CHELONIA A

Controller: Raspberry pi 4B, teensy 4.0
Motors: DC Motor with Encorders
Sensors: IR, Ultrasonic, IMU etc.
Communication: Bluetooth & WiFi
Platform: Ubuntu, ROS

CANCERO

Controller: Raspberry pi 4B, teensy 4.0
Motors: DC Motor with Encorders
Sensors: IR, Ultrasonic, IMU etc.
Communication: Bluetooth & WiFi
Platform: Ubuntu, ROS
End effector: 2 DoF Gripper

SCORPION

Controller: Raspberry pi 4B, teensy 4.0
Motors: DC Motor with Encorders
Sensors: IR, Ultrasonic, IMU etc.
Communication: Bluetooth & WiFi
Platform: Ubuntu, ROS
End effector: 3 DoF Arm

TURTLEBOT HEADING

Controller: Raspberry pi 4B, teensy 4.0
Motors: DC Motor with Encorders
Sensors: IR, Ultrasonic, IMU, Lidar etc.
Communication: Bluetooth & WiFi
Platform: Ubuntu, ROS
End effector: Nill

SPIDERA

Controller: Raspberry pi 4B, teensy 4.0
Motors: 12 servo motors
Sensors: IR, Ultrasonic, IMU, Lidar etc.
Communication: Bluetooth & WiFi
Platform: Ubuntu, ROS
End effector: Nill

DESCRIPTION

Chelonia Advanced is an affordable, compact, and versatile robotics platform designed for education, research, and autonomous systems. Leveraging the power of ROS (Robot Operating System) and a Raspbery Pi 4B, it provides seamless integration with opens ource tools, allowing for autonomous navigation, mapping, and task execution. With its modular and customizable design,

advanced researchers.

GENERAL SPECIFICATIONS

Dimensions: 138mm x 178mm x 192mm (L x W x H)

Weight: Compact and lightweight for portability.

Base Platform: Durable, scalable structure suitable for various applications.

POWER

Battery: 12V rechargeable lithium battery.

Battery Capacity: 2200mAh.

Battery Type: Lithium-ion.

COMPUTING HARDWARE

Controller: Raspberry Pi 4B, Teensy microcontroller.

Operating System: Ubuntu 20.04 Server with ROS Noetic integration.

Sensors: Lidar, Encoders, MPU 6050 IMU, HC-SR04 Ultrasonic sensor.

MOBILITY FEATURES

Motors

12V DC motors (251 RPM) with encoders.

Encoder Resolution: 64CPR (motor shaft) / 2797CPR (gearbox shaft).

Wheels

Diameter: 7 cm.

Sturdy and efficient for smooth movement.

Navigation

360° Lidar-based mapping and localization for autonomous navigation.