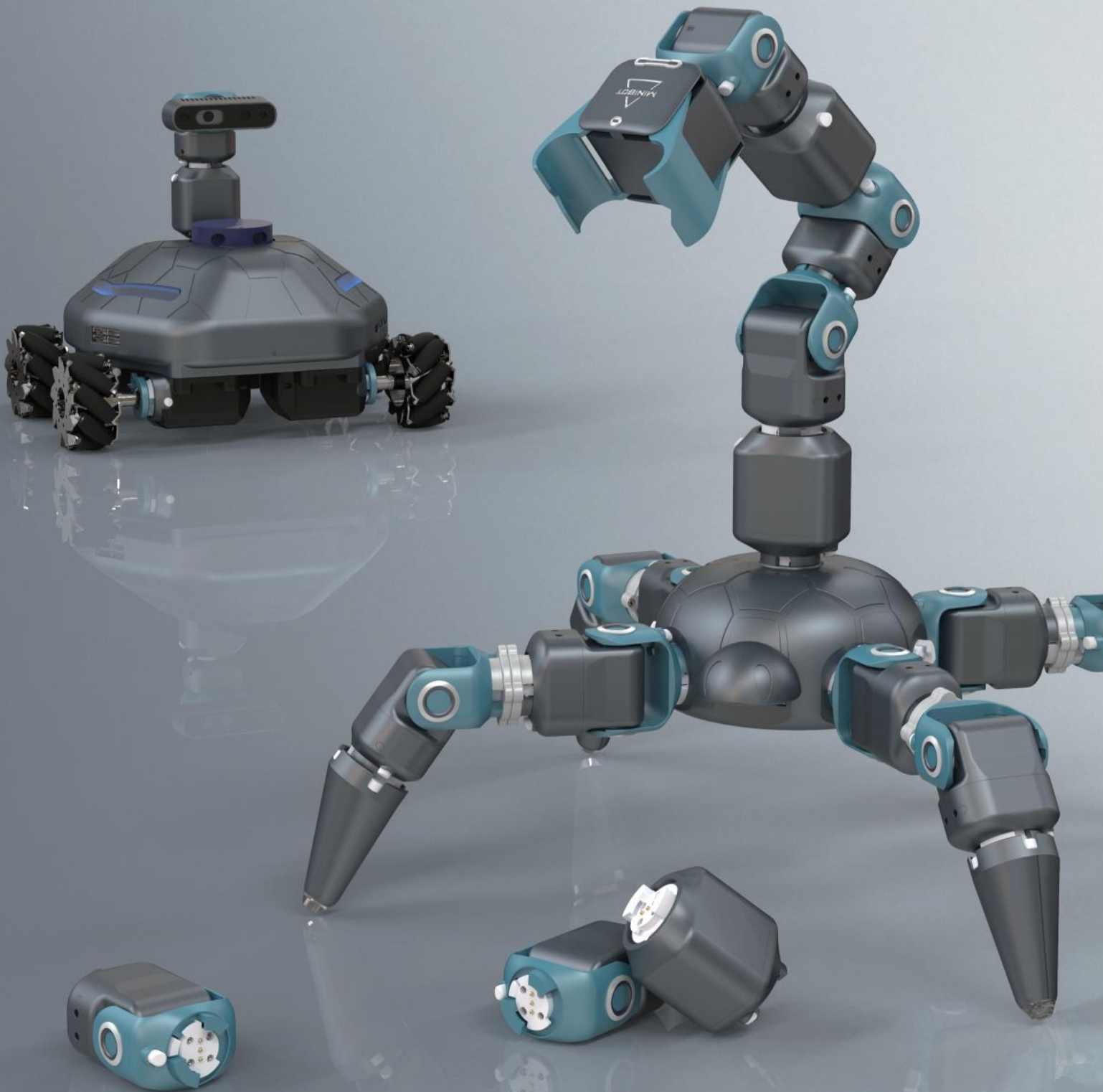


# MINIBOT

A Modular Reconfigurable Intelligent Robot System



# Kit Introduction

## Basic module



G module



T module



I module



F module



P module



M module



Fixed base



Orthogonal module



I Holder



Bionic foot module



Mecanum wheel



Flat wheel

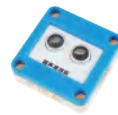


Universal wheel

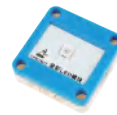


Serpentine wheel

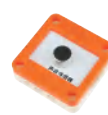
## External equipment



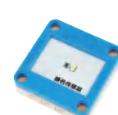
Ultrasonic



LED



Sound sensor



Color sensor



Infrared module



Control board



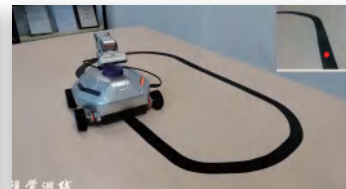
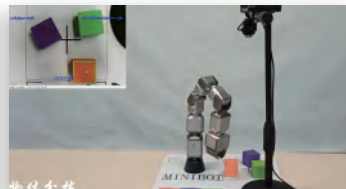
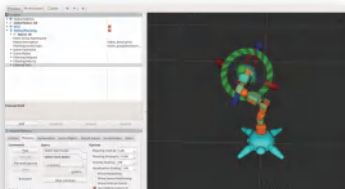
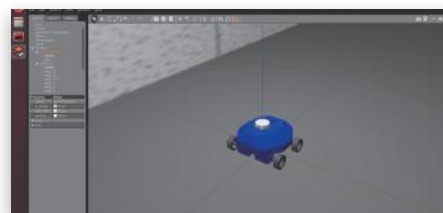
Camera module



Robot Controller

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## Experimental Cases



## Implemented Experiments

### Applicable Majors

|                         |                                                                                                                                                                                                                              |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Undergraduate education | Robotic Engineering<br>Automation<br>Mechatronic Engineering<br>Mechanical , manufacturing and automation<br>Intelligent Manufacturing Engineering<br>Artificial intelligence<br>Intelligent Science and Technology<br>..... |
| Vocational education    | Industrial robot<br>Electrical automation<br>Mechanical Manufacturing and Automation<br>Mechatronics<br>Computer Application Technology<br>.....                                                                             |

### Experiment List

|         |                                                                                                                                                                                                      |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control | Control of mechanical arm<br>Control of wheeled mobile robot<br>Control of bionic multi legged<br>.....                                                                                              |
| AI      | AI vision - color recognition<br>AI vision - QR code recognition<br>AI Vision - Face Recognition<br>AI Vision Speech Recognition<br>AI vision voice control<br>AI Visual Voice Conversation<br>..... |
| ROS     | ROS-Simulation MiniBot<br>ROS-Autonomous navigation<br>ROS-Autonomous positioning<br>ROS-Follow autonomously<br>ROS-Sports Planning<br>.....                                                         |

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0cm between the radiator and your body.