

Specification of MPBOT S1



MPBOT S1 integrates Nashenbot Micro-brain programming system, offering a lightweight solution that combines robot control and programming without relying on computers or tablets. It supports both Micro-brain programming (for standalone operation) and desktop-based modular/Python programming, providing flexible development options. This dual compatibility makes it ideal for participating in competitions like GAR (Global Artificial Intelligence Robot) where diverse programming approaches and reliable hardware performance are required.

It includes,

- 1 MPC controller: Control the operation of each module by issuing instructions from the master control. It supports three modes: real-time control, key-screen programming and advanced functions. 1 display screen, 128 * 64 pixels, supporting page turning display; 1 speaker, supporting voice playback and 7 kinds of audio; 1 recording button, supporting recording function; 1 switch button, supporting the switch function; 1 mode switch, supporting 3 modes switching; 1 speed switch, supporting 3 kinds of motor speed exchange; 26 programmable control keys, supporting motor speed regulation and commutation, sensor judgment and actuator on-off, and cycle logic; Built-in Bluetooth module; 6-way RJ11 interface, supporting 2-way motor (A, B), 4-way sensor input and output (C, D, E, F); 1-way Type-C charging interface, supporting 5V1A charging; 2-way status light; The shell is compatible with LASY and LEGO building systems.
- 2 Motor: It supports forward and reverse control and provides the power output of the robot. The maximum rated speed is 50RPM $\pm$ 10% (full power), and the reduction ratio is 1:120
- 1 Servo motor: Control rotation angle. The working voltage is 5v, and the angle is -90° ~90° .
- 1 Infrared sensor: Detect whether there are obstacles in front. The working voltage is 5v, and the detection range is effective within 10cm (white surface reflection)

- 1 Sound sensor: Detect whether there is sound in front. The working voltage is 5v, and the detection range is 20~90dB.
- 1 Integrated 5-grayscale sensor: Detect whether there is trace under. The working voltage is 5v and the detection height is 1.6cm.
- 2 Full color lights: It provides five color schemes of red light, green light, white light, blue light and yellow light, and supports two modes of lighting and off. The working voltage is 5v.
- 1 Open-loop motor: Three modes are provided: forward rotation, reverse rotation and stop. The working voltage is 5v.
- 1 Color sensor: It can recognize 6 different colors. the detection height is 0.5cm.

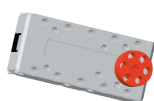
There are no less than 700 building blocks, which are compatible with Lego building expansion.

1 set of programming software, which supports building-block graphical programming and Python code comparison.

Controller *1



Motor *2



Servo motor *1



Infrared sensor *1



Full color light *2



Open-loop motor *1



Sound Sensor *1



Integrated 5-Grayscale Sensor*1



Color Sensor*1



Sensors cable (40cm) *2



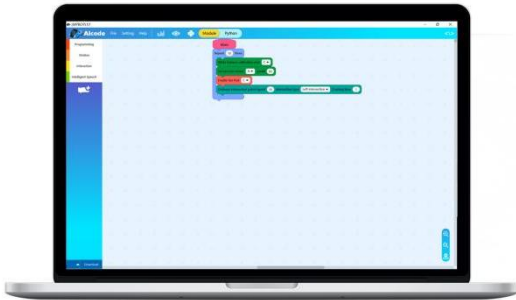
Sensors cable (20cm)*4



Patrol map*1



Software:

Software name	Image
AICODE (windows version)	
Micro-brain programming	

Download Link: <https://www.nashenbot.com/software/>