

Specification of AISTEAM 203S



AISTEAM 203s is the fifth generation of educational robot developed by NASHENBOT, it is the artificial intelligence programming robot, which has the characteristics of "programming of everything" and "Internet of Everything", and it is a product line that combines artificial intelligence, robot and creator.

It includes 1 set of controller, 2 motors, 2 types of actuators, 3 types of sensors, 2 types of wheels and more than 400 building blocks, which can build 2-wheel differential drive chassis robot. It can cooperate with sensors to realize various robot forms such as line patrol robot and obstacle avoidance robot. It can participate in the GAR competition with additional motor and sensors parts.

- 1 Controller, using ARM Cortex-M3 architecture with a main frequency not lower than 72MHz, built-in 1 Micro:bit interface (compatible with v1.5, v2.0, supporting Makecode programming), 5 RJ11-I/O interfaces (4 & 1 channel I2C port, 1 channel serial port), 2 channels XH-2PIN open-loop motor interface, 1 channel XH-3PIN analog servo interface, 1 channel USB data interface, 3 groups of 4PIN pins (including G/V/S) support no less than 20 kinds of open source hardware, one RJ45-10PIN module expansion interface supports bus series connection, two PH-6PIN bus interfaces, one 5264-3PIN digital servo interface, and the shell is compatible with LASY and LEGO construction systems;
- 2 Open Loop Motor, rated speed $200\text{RPM} \pm 10\%$, reduction ratio 1:120;
- 2 Full Color Light, Working voltage 5v, color range RGB0 ~ 255, luminous angle 120° ;
- 1 Single-line Follower Sensor, Working voltage 5v, detection distance 1~2cm, interface type digital output;
- 1 Infrared Remote Control Module, Infrared receiver: operating voltage 5v, receiving range 0~ 1000cm, interface type digital output; infrared remote control: working voltage 3v, remote control range 0 ~ 1000cm, red

The external carrier frequency is 38kHz, and the programmable key is not less than 15;

- 1 Infrared Sensor, Working voltage 5v, detection range 5 ~ 20cm, detection accuracy $\pm 2\text{cm}$ (white surface reflection), interface type analog output;

- 1 Lithium battery, discharge voltage 7.4V, discharge capacity 1100mAh, charge voltage 8.4V, charge current 1.0~2.0A;
- 1 Charger, output voltage 8.4V, output current 1.0A;
- 2 Driving wheels, diameter 6.88cm $\pm$ 0.1cm, soft wear-resistant and environmentally friendly rubber;
- There are no less than 400 building blocks, compatible with Lego blocks.

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

Controller *1



Open Loop Motor *2



Single-line follower sensor *1



Infrared sensor *1



Full color light *2



Lithium battery *1



Infrared remote control module *1



Infrared remote control *1



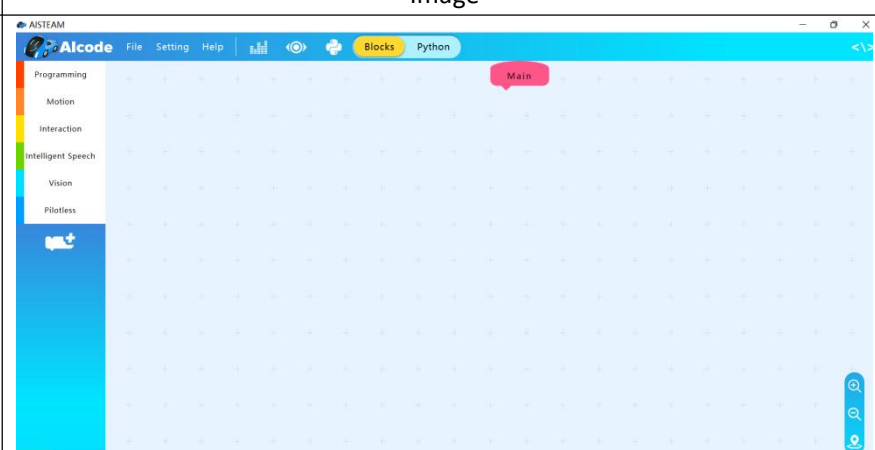
Sensors cable (40cm) *2



Sensors cable (20cm)*3



Software:

Software name	Image
AICODE (windows version)	

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