BE STEM READY Learning

Super Trajectory Robot 3



This robotics course introduces programming, sensors and motion.

The kit includes sensors and programmable components for learning.

sensor, photoelectric sensor, color light, ultrasonic, camera and many building blocks parts. Students can build various building block robots with their imagination, and use graphical programming software to program the robot and experience the joy of hands-on creation.

Learning Target

01

Knowledge goal

Application

02

Ability goal

Familiar with the use of color sensor module, master the basic operation of variables.

03

Emotional attitudes and values

Automation industrial manufacturing, liberate hands, accumulate experience, cultivate logical reasoning ability.

Learning Target

01

Learning focus

Master the use of photoelectric patrol line.

02

Learning difficulties

Understand flexible use of optoelectronic modules and condition determination.

Contents

01 Course Introduction

02 Teaching New Knowledge

03 Design Assembly

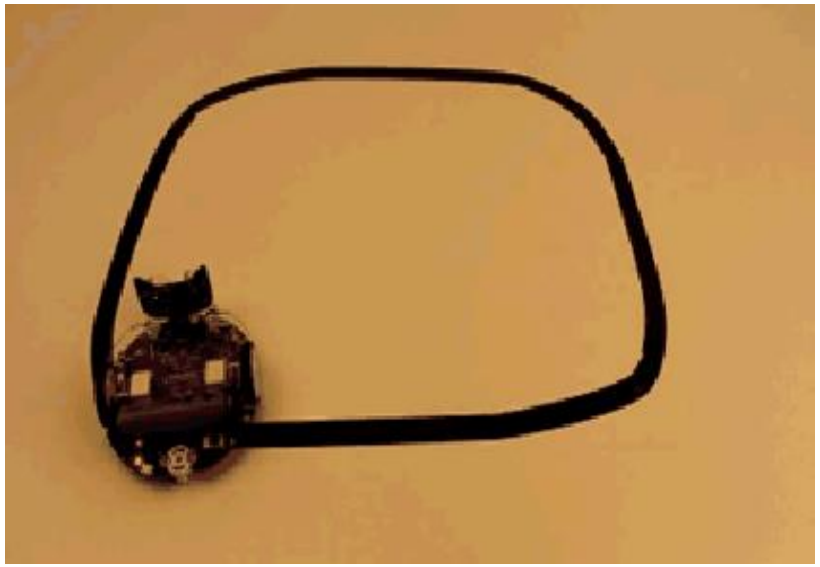
04 Programming and Debugging

05 Test Effect

Course Introduction



Course Introduction



Let's look at a picture. Thinking about? 1, what is the patrol? 2, patrol, what need to measure the data?

This program requires A,B motors, touch sensors and A photoelectric sensors. At the beginning of the program, the light sensitivity value of the white light is first collected. After the touch sensor is released, the light sensitivity value of the black line is collected, and then the average is calculated. The average is used as the demarcation point of the photoelectric branch. Less than, B stops A. This is a cycle, jump to the photoelectric branch before.

Course Introduction



Super Track

Meet the Super Track Robots

Light sensors, also known as brightness sensors, are included in many tablets and phones. Usually located above the handheld screen, it can automatically adjust the brightness of the handheld screen according to the current brightness of the handheld device. This lecture will build a super track robot, used to patrol black and white.

Teaching New Knowledge

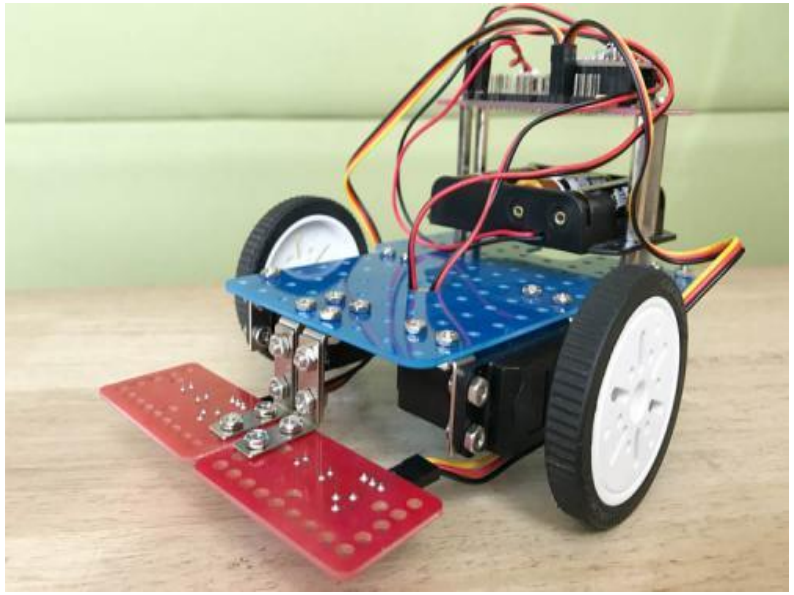


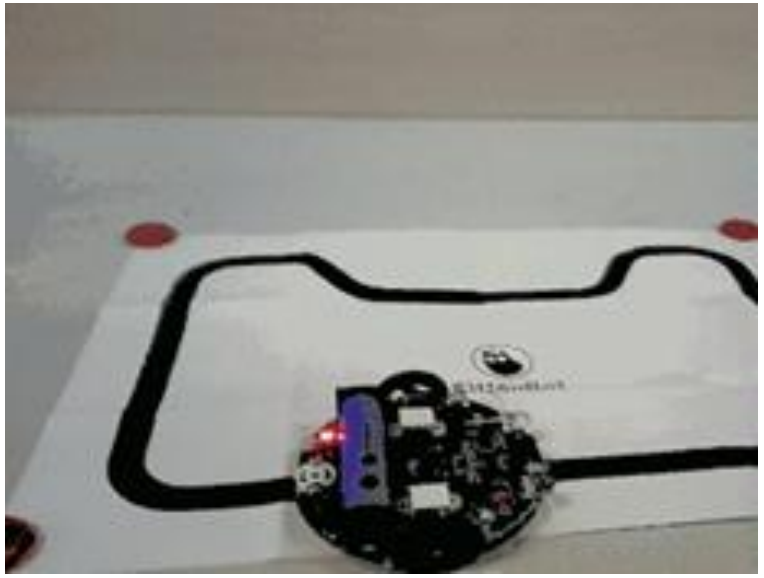
Teaching New Knowledge

Design is a process of conveying an assumption through reasonable planning, careful planning and various sensory forms. Human beings transform the world through labor, create civilization, create material wealth and spiritual wealth, and the most basic and main creative activity is creation. Design is the pre-planning of creation activities, and the planning technology and planning process of any creation activity can be understood as design.

Teaching New Knowledge

Patrol car





Design Assembly



Design Assembly



Assembly requirements

1. stable structure
2. focus is right
3. shape match

Checking Effect



Test Effect



Review the learning content and deepen your impression.

Question 1 Source of creation?

Question 2 How does the robot work?

Question 3 Direction of modification?

Thank you for watching

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