Learning Series

Fan robot



This robotics kit is a building block programming robot developed by Joinmax. The kit is equipped with various sensors such as sound sensitivity, color, touch, photoelectric, lantern, ultrasonic, camera and a wealth of building blocks. Students can use their imagination to build a variety of building block robots, and use graphical programming software to program the robot and experience the joy of hands-on creation.

Learning Target

01

Knowledge goal

Learn to use it.

02

Ability goal

Familiar with the control mode of the servo motor, master the working range programming.

03

Emotional attitudes and values

Understand the use of power and intuitively feel the charm of mechanical development.

Learning Target

01

Learning focus

Master the servo output structure and state control.

02

Learning difficulties

Edit reasonable functionality based on the creative theme.

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Course Introduction



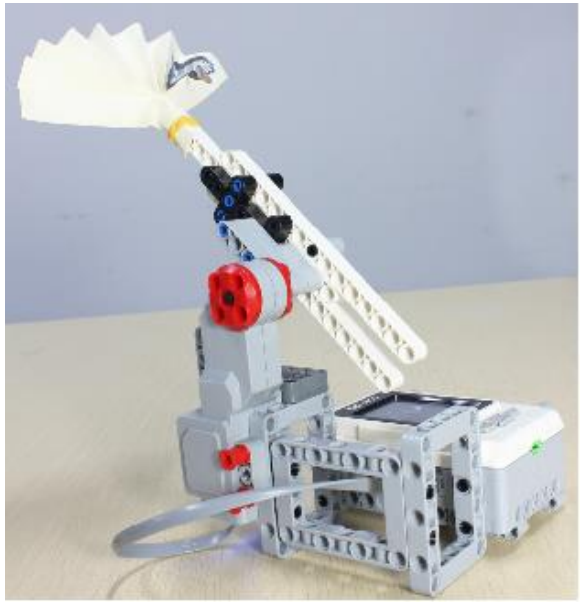
Course Introduction



Do you want to use the servo motor?

In the first few lessons, we learned a lot about the conventional knowledge of servo motors. The understanding of motors has not stopped simply in simple sports. Then the class teacher arranged a task for everyone, using the knowledge we have learned, and designing a robot based on the characteristics of the servo.

Course Introduction



Fan robot

Know about Fan robot

This robot is designed with emphasis on the design of the servo arm. It can be referenced according to the physical reminder device. After the completion, the programming of the fan device is combined. You can challenge it!

Teaching New Knowledge



Teaching New Knowledge

Fan robot

1, type: wave type

2. Direction: swing range

3, structure: waving space

4, shape: frame + arm + fan

Teaching New Knowledge

Equipment matching:

1. electronic components: RCU, large motor

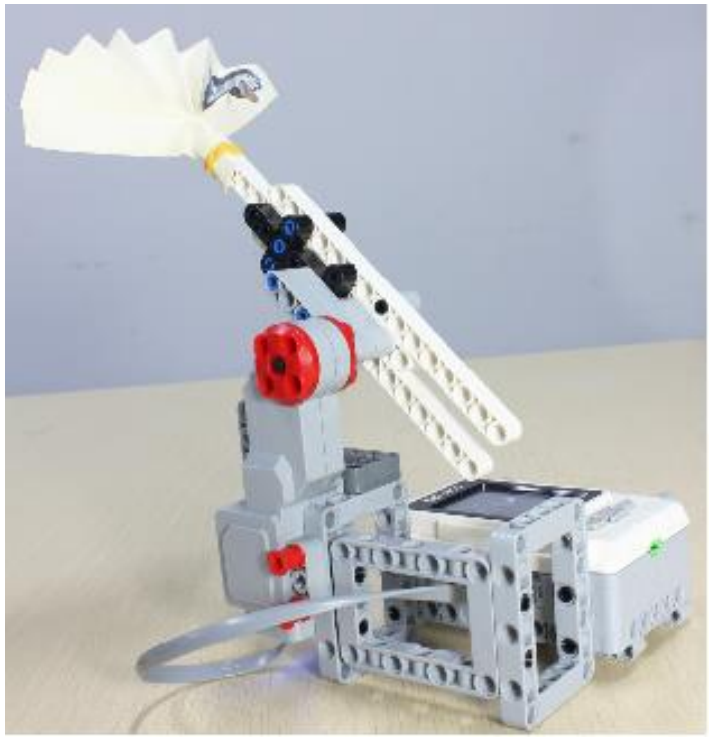
2. shape: the focus of the arm

3. other: RCU because of the larger size, can be used as a machine base

Task Practice



Task Practice



Assembly requirements

1 stable structure

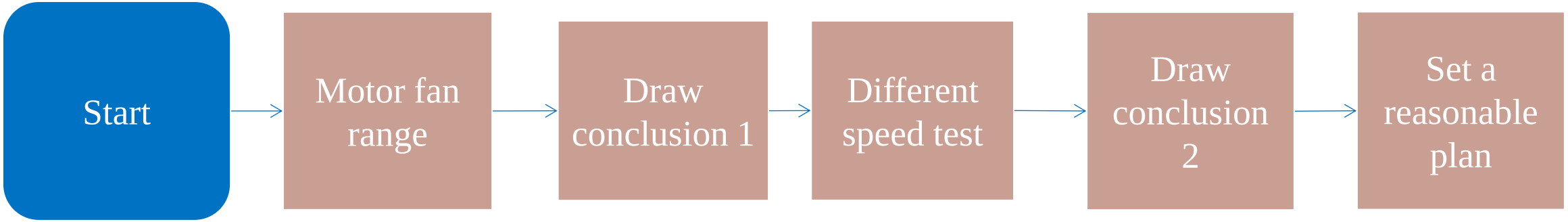
2 focus is right

3 shape match

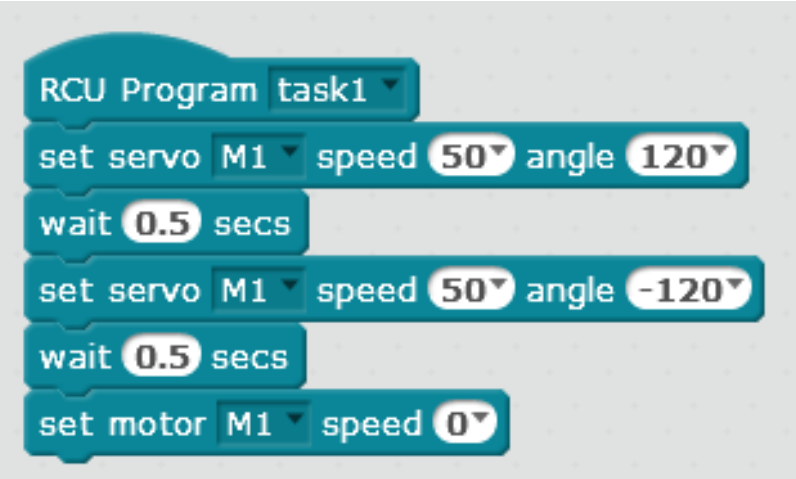
Programming and Debugging



Programming and Debugging



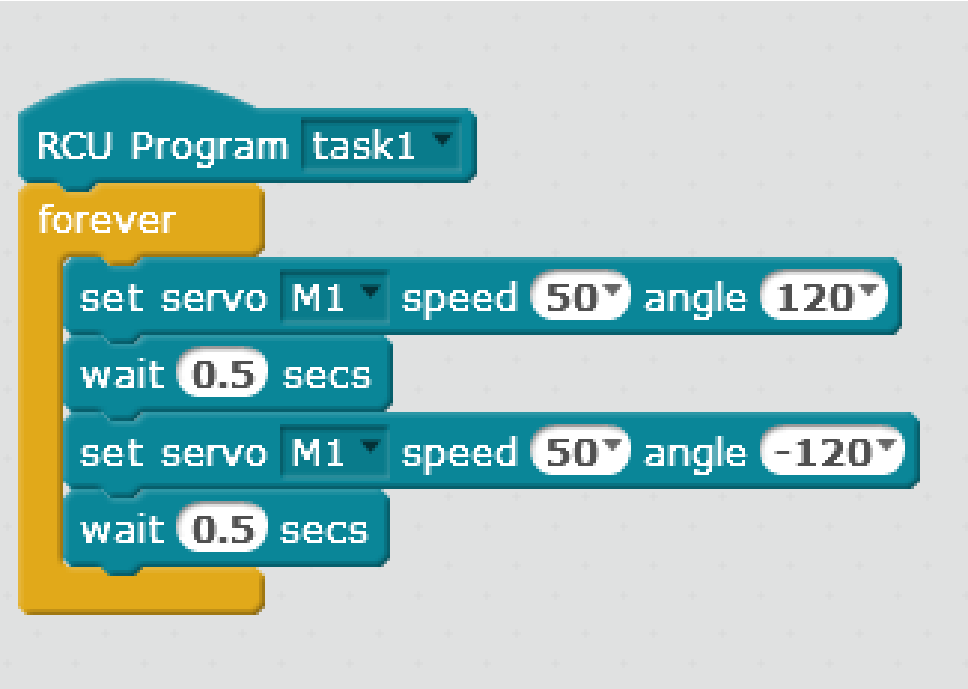
Programming and Debugging



1. The speed of the motor 1 is 50, and then turn in reverse, the angle is plus or minus 120 degrees, and the motion effect is observed.

Conclusion: Observe the motion range of the servo motor. If there is an unconventional collision, reduce the angular size.

Programming and Debugging



2. The speed of the motor 1 is 100, and the speed of the second motor 1 is -100, and the motion effect is observed.

Conclusion: The faster the speed, the better the fan effect.

Checking Effect



Test Effect



Review the learning content and deepen your impression.

Question 1 What is the name of the robot made today?

Question 2 What materials are used in today's robots?

Question 3 What is the fan effect?

Thank you for watching

BE STEM READY

