Learning Series

Clip 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

The servo motor is zeroed and the motor power is selected.

02

Ability goal

Understand the motor power and master the motor power module.

03

Emotional attitudes and values

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

Learning Target

01

Learning focus

Strengthen the zeroing of the servo motor and change the motor horsepower.

02

Learning difficulties

Select the motor power according to the actual situation.

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Course Introduction



Course Introduction

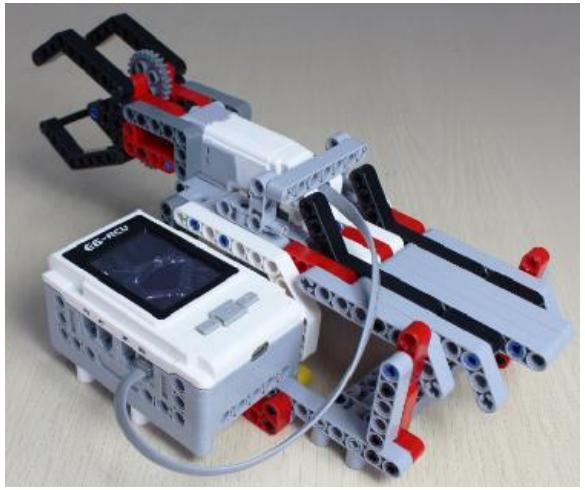


What is the horsepower we often say?

Engine horsepower is also known as "engine horsepower". Refers to the rated power of the engine of a power machine such as an internal combustion engine or a tractor. Since the power unit is usually expressed in horsepower (one horsepower is equal to 75 kilograms per meter in one second), it is customary to say that the engine power is engine horsepower.

Let's learn how horsepower changes.

Course Introduction



Clip

Know the Clip robot

The robot name in this lesson is called "clip". The robot mimics the robotic arm and clip-like structure that is used to grip the item. The base is a beam structure with RCU and arm, and the clip motor is controlled by a medium-sized motor.

Let's learn together.

Teaching New Knowledge



Teaching New Knowledge

In the last lesson, we learned the use of the code value. If we want to use this value as the zero point when we reach a certain code value, we can use the code value to zero and redefine the value of this point.

Zeroed code value

Use motor encoder-encoder zeroing module



Teaching New Knowledge

Power refers to the amount of work done by an object in a unit of time, that is, the power is a physical quantity that describes how fast the work is done.The amount of work is constant, and the shorter the time, the greater the power value.The formula for finding power is power = work / time.The power characterizes the physical quantity of the work.The work done in unit time is called power and is denoted by p.Therefore, the power is equal to the scalar product of the force and the velocity of the force point of the object.

The greater the power, the greater the horsepower.

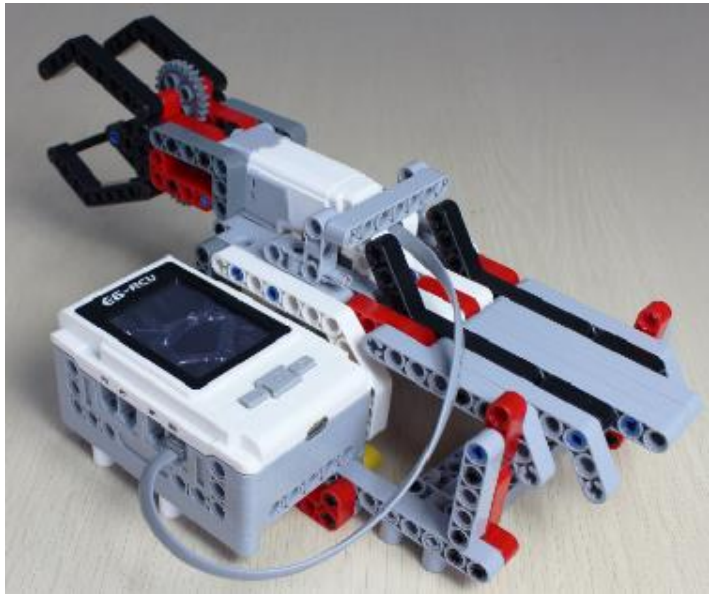


Use the Set Motor Power Module to select the power value and port.

Task Practice



Task Practice



Assembly requirements

1. stable structure

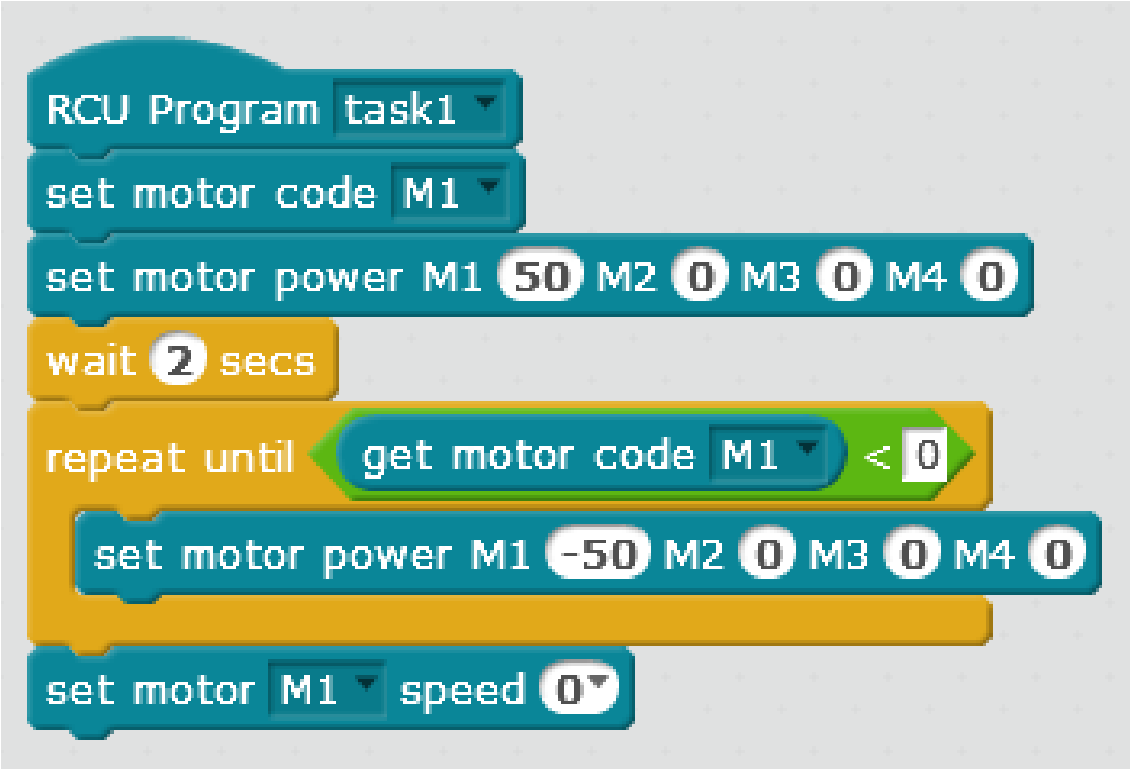
2. focus is right

3. shape match

Programming and Debugging



Programming and Debugging



1. Set the motor power to 50 and the clamp to close for 2 seconds.

Set the motor power to -50 and the clip opens until it returns to its original position.

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 hardware does the robot use today?

Question 3

Is the power of the robot the bigger the better?

Thank you for watching

