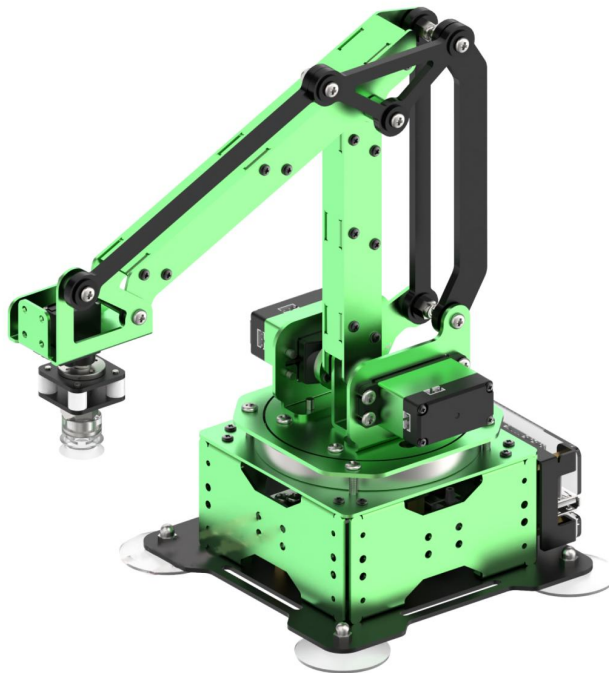


# Lesson 1 MaxArm Introduction

## 1. MaxArm Introduction

Powered by ESP32 microcomputer, MaxArm robotic arm with Wi-Fi and Bluetooth communication functions uses Micro-Python for programming. Besides the various operation functions of traditional desktop robotic arm, MaxArm is developed with expansion interfaces. It is easy and efficient to explore more secondary development projects with sensor kit and Python editor software.

Provide Python library files for various basic operations of ESP32 microcomputer, various sensors and comprehensive application case programs for implement color sorting, ultrasonic detection and inverse kinematic operations. In the meantime, the provided abundant tutorial and open-source code get you experience MaxArm at once!



## 2. Packing List



No.1	Instruction
1	Assembled robotic arm
2	4*4cm colored blocks
3	Power adapter
4	USB cable
5	Suction cups
6	Screwdriver
7	Cables and accessory

8	Sensor kit (Optional)
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### 3. Tutorial Overview

Step 1: Learn about MaxArm Robotic Arm

Please go to folder “1.Getting Ready” to get basic understanding of MaxArm structure and its status after powering on.

Step 2: Quick User Experience

Learn about how to quickly control MaxArm by app and mouse in folder “2.Quick User Experience”.

Step 3: MaxArm PC Software Learning

In folder “3.PC Software Learning”, learn PC software and action programming systematically. Master the operations of PC software, the programming of a simple action, call the programmed action via app and how to integrate actions and offline running.

Step 4: Secondary Development Learning

Please go to folder “4.Secondary Development” to learn library file and editor, then master the electronic module and basic programming knowledge through basic lesson. In addition, users who purchased the sensor kit are able to learn the combination of sensors and robotic arm for scenario simulation examples through PBL project programming.

Step 5: Advanced Lesson

In folder “5. Advanced Lesson”, learn how to drive the servo, air pump and other hardware knowledge, as well as through the study of inverse kinematics, you can understand the robot arm movement, path planning and other underlying knowledge.

