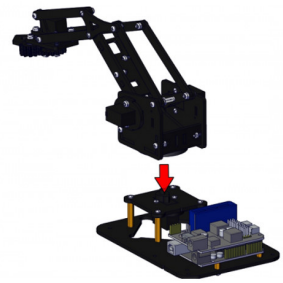
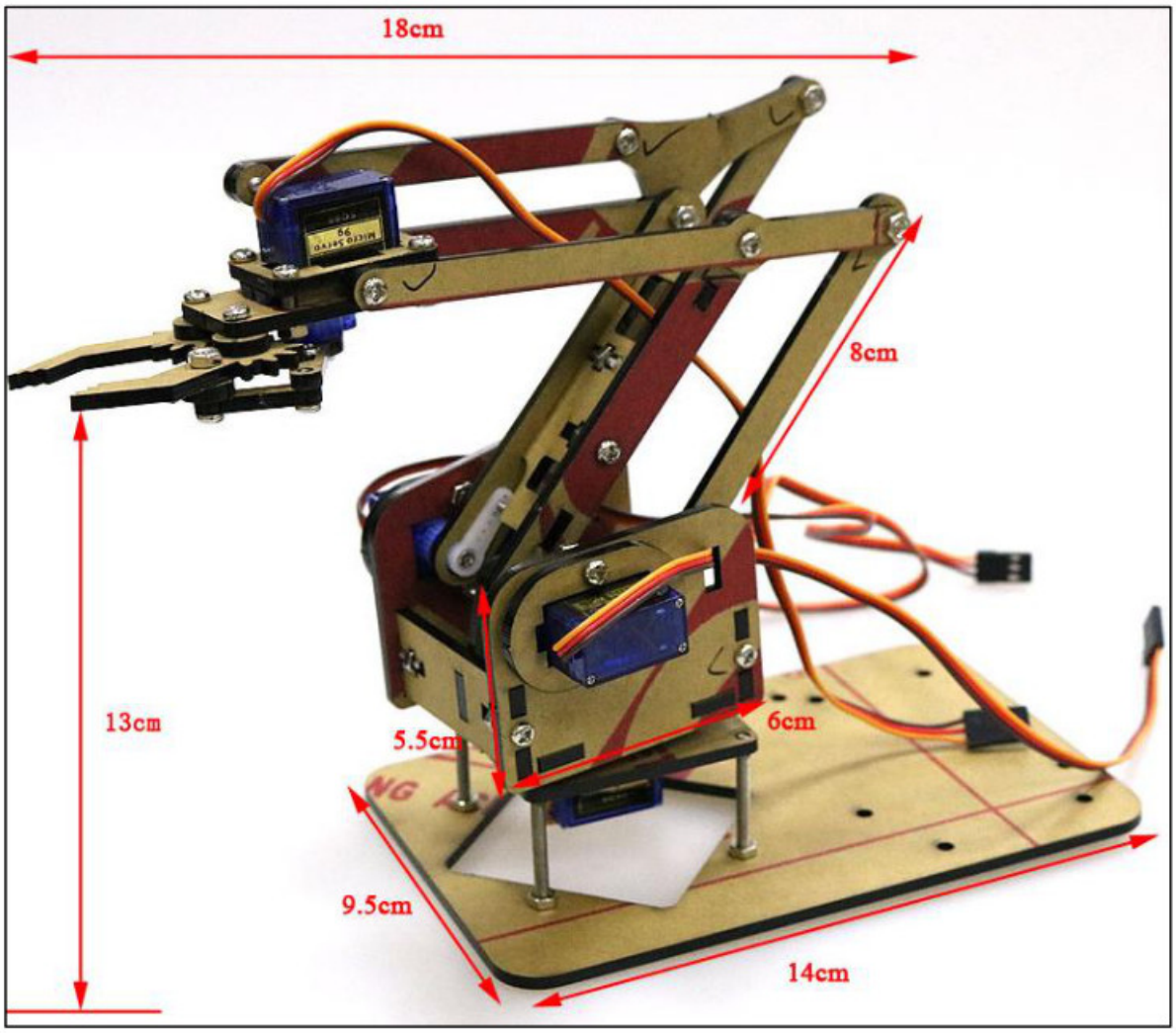


ARDUINO Ks0198 Keyestudio 4DOF Robot Mechanical Arm Kit Instructions

ARDUINO ROBOTIC ARM 4 DOF



Contents

Introduction

The MeArm project aims to bring a simple Robot Arm well within the reach and budget of the average educator, student, parent or child. The design brief that has been set out with was to build a full robot arm kit with standard low cost screws, low cost servomotors and using less than 300 x 200mm (~A4) of acrylic. While trying to solve the robotic problem, user also can get to learn about science, technology, engineering, arts and mathematics or STEAM.

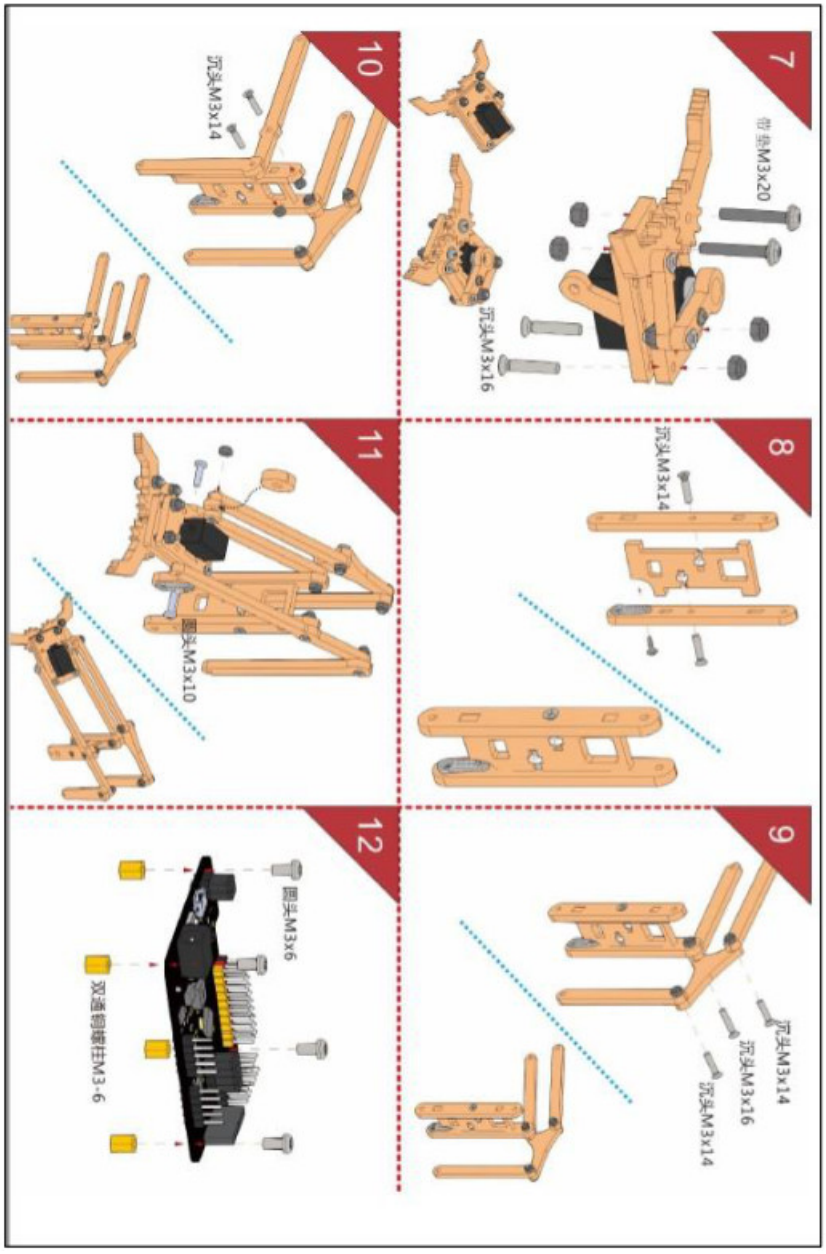
The more people who are involved with these STEAM activities the more chance they have of solving all of life's problems. The MeArm is an Open Sourced Robot Arm. It's small, like pocket sized and that's for a reason. It can be cut entirely from an A4 (or more accurately 300x200mm) sheet of acrylic and built with 4pcs cheap hobby servos. It supposed to be an educational aid, or more accurately a toy. It still needs some tinkering but is at a good first draft state.

Component List

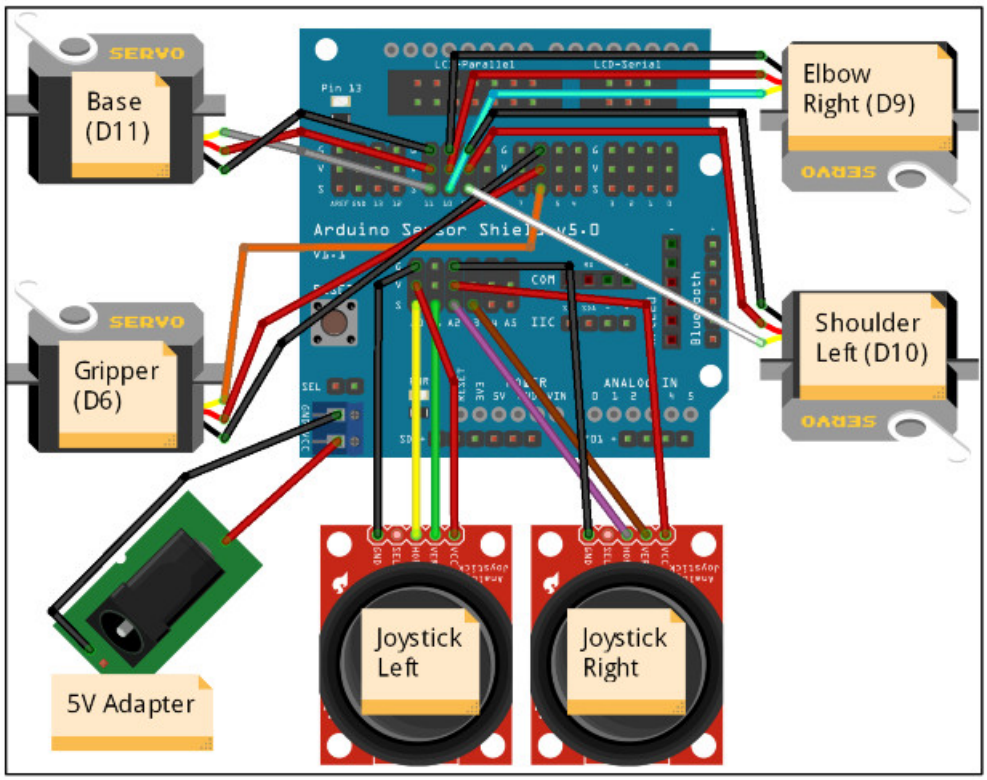
1. Servo Motor SG90S (Blue) – 3set
2. Servo Motor MG90S (Black) – 1set
3. Robotic Arm Acrylic Kit – 1set
4. Arduino UNO R3 (CH340) + Cable – 1pcs
5. Arduino Sensor Shield V5 – 1pcs
6. Joystick Module – 2pcs
7. Jumper Wire Female to Female – 10pcs
8. Power Adapter DC 5v 2A – 1pcs
9. DC Jack (Female) Plug Converter – 1pcs
10. Single Core Cable – 1m

Installation Manual

Reference: Assembly of MeArm Mechanical Arm (**gitnova.com**)

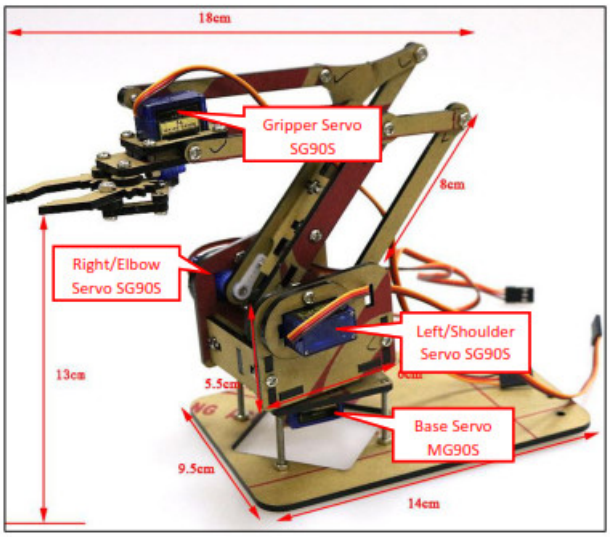


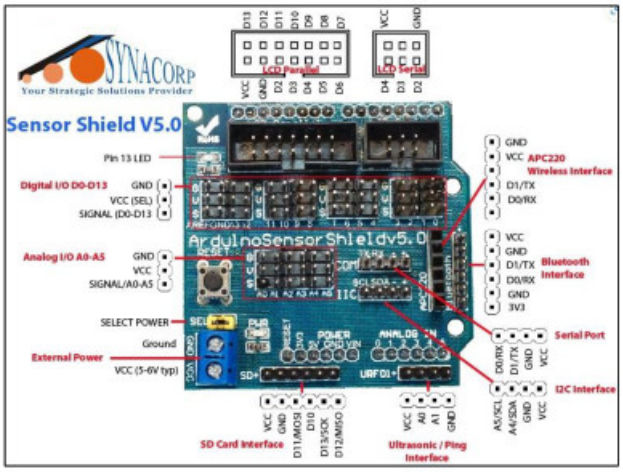
Circuit Diagram



Arduino Sensor Shield V5	**Servo MG9OS (Base) *Black Color***
Data 11 (D11)	Signal (S)
VCC	VCC
GND	GND
Arduino Sensor Shield V5	Servo SG9OS (Gripper)
Data 6 (D6)	Signal (S)
VCC	VCC
GND	GND
Arduino Sensor Shield V5	Servo SG9OS (Shoulder/Left)
Data 10 (D10)	Signal (S)
VCC	VCC
GND	GND
Arduino Sensor Shield V5	Servo SG9OS (Elbow/Right)
Data 9 (D9)	Signal (S)
VCC	VCC
GND	GND

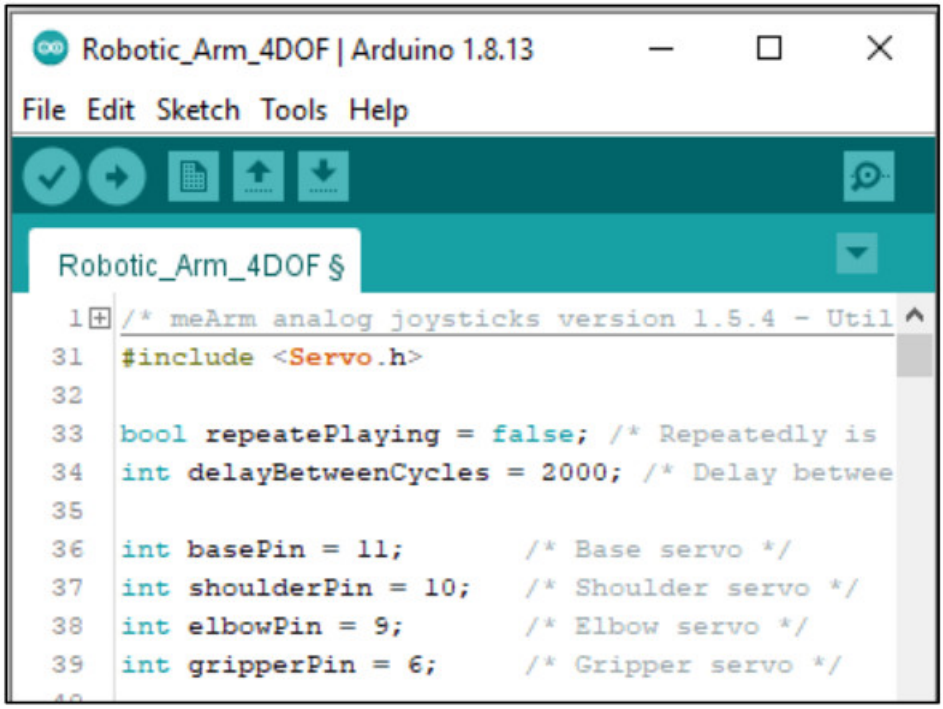
Arduino Sensor Shield V5	Joystick Module Left
Analog 0 (A0)	VRX
Analog 1 (A1)	VRY
VCC	VCC
GND	GND
Arduino Sensor Shield V5	Joystick Module Right
Analog 0 (A0)	VRX
Analog 1 (A1)	VRY
VCC	VCC
GND	GND
Arduino Sensor Shield V5	DC Power Jack
VCC	Positive Terminal (+)
GND	Negative Terminal (-)



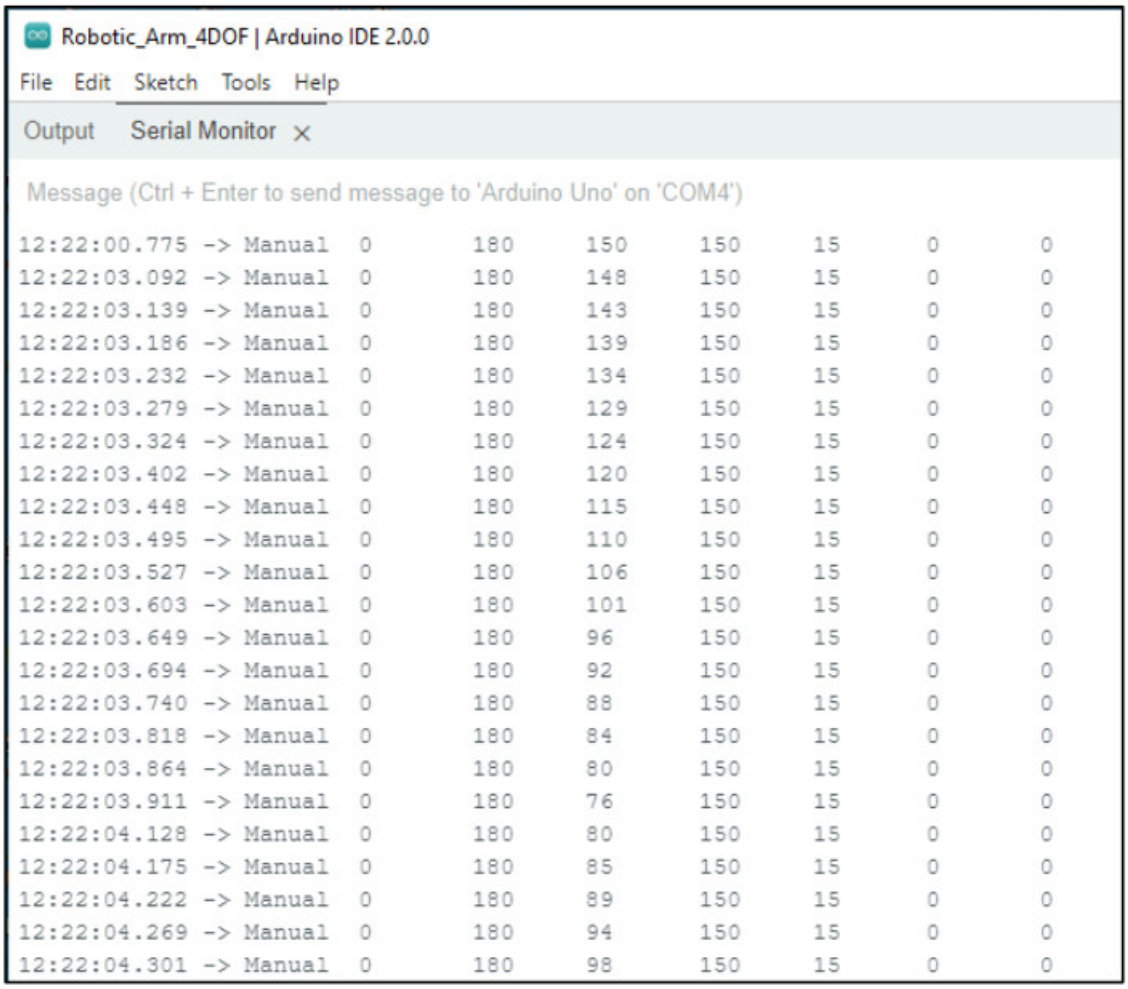


Sample Code

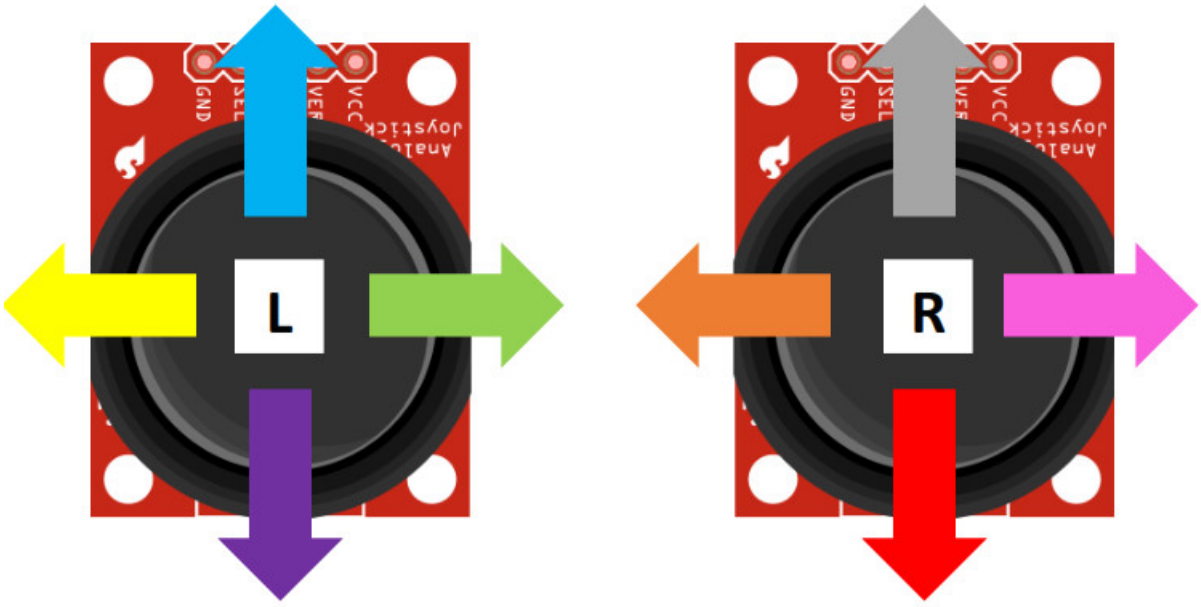
Upload this code after finish Kit installation.
(https://home.mycloud.com/action/share/5b03c4d0-a74d-4ab5-9680-c84c75a17a70)



You can check servo angle via Serial Monitor



Control / Movement Set



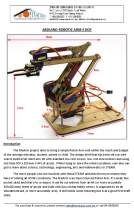
Color	Servo	Action
L	Base	Turn Base to Right
L	Base	Turn Base to Left
L	Shoulder/Left	Move Upward
L	Shoulder/Left	Move Downward
R	Gripper	Open
R	Gripper	Close
R	Elbow/Right	Move Backward
R	Elbow/Right	Move Forward

For purchase & enquiries, please contact sales@synacorp.com.my or call 04-5860026

SYNACORP
Your Strategic Solutions Provider

SYNACORP TECHNOLOGIES SON. BHD. (1310487-K)
No.25 Lorong I/SS3. Bandar Tasek Mutiara.
14120 Simpang Ampat. Penang Malaysia.
T: «604.586.0026 F: +604.586.0026
WEBSITE: www.synacorp.my
EMAIL: sales@synacorp.my

Documents / Resources

	**ARDUINO Ks0198 Keyestudio 4DOF Robot Mechanical Arm Kit** [pdf] Instructions Ks0198 Keyestudio 4DOF Robot Mechanical Arm Kit, Ks0198, Keyestudio 4DOF Robot Mechanical Arm Kit, 4DOF Robot Mechanical Arm Kit, Robot Mechanical Arm Kit, Mechanical Arm Kit, Arm Kit, Kit

References

- V2-NEW

Manuals+,