



1. Description

Mechanical arm, featuring alike people' s arms, could execute a series of postures. At present, many mechanical arms are fixed style, which can' t be operated flexibly for environment and distance.

On tackling this problem, KEYES group has launched a 3 in 1 learning kit-4DOF mechanical robotic arm car. With this kit, you could acquire how to control mechanical arm and smart car, what' s more, they can be combined to transform into mechanical arm smart car. I believe that you can' t help opening it to get started.

2. Features

3 in 1 Design: Smart car, mechanical arm, mechanical robot arm car

Multi-purpose Function: obstacle avoidance, follow, IR remote control and automatic convey.

Easy to Build: no soldering circuit required.

High Tenacity: high performance car baseplate and metal mechanical arm

High Extension: expand other sensors and modules through motor driver shield.

Multiple Controls: PS2 joypad control, full automatic and App control(iOS



and Android system)

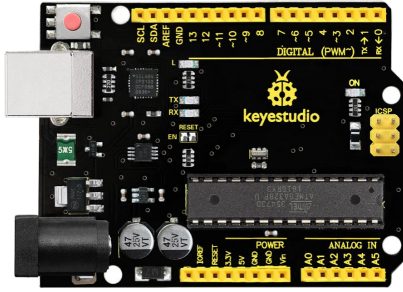


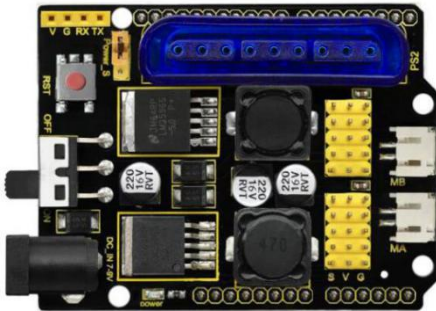
Basic Programming: C language code learning.

3. Specification

- Working voltage: 5v
- Input voltage: 7-12V
- Maximum output current: 3A
- Maximum power dissipation: 25W (T=75°C)
- Motor speed: 5V 63 rpm / min
- Motor drive form: TB6612 drive
- Ultrasonic sensing angle: <15 degrees
- Ultrasonic detection distance: 2cm-400cm
- Bluetooth remote control distance: 20-50 meters (measured)
- Bluetooth APP control: support Android and iOS system



4. Component List

Model	QTY	Picture
KEYESTUDIO V4.0 Development Board (Compatible Arduino uno)	1	
USB Cable AM/BM Blue OD:5.0 L=1m	1	
HC-SR04 Ultrasonic Sensor	1	
KEYESTUDIO TB6612FNG Motor/Servo Drive Shield	1	



KEYESTUDIO Red LED Module	1	
PS2 Wireless 2.4G Game Controller	1	
Baseplate for Ultrasonic Sensor/Servo	1	
Car Baseplate T=3.0 KS0520	1	
Bearing Cap	1	



15 pcs Aluminium Alloy Robot Arm Parts	1	
2-Slot Battery Holder with Lead	1	
KEYESTUDIO Car Wheels	2	
4.5V 200rpm Motor	2	
AXK Plain Bearing	1	










Plain Bearing	2	
Universal Wheel	1	
Fixed Mount 23*15*5MM	2	
M3*30MM Round Head Screws	4	
MG90S 14G Servo	4	
M3*10MM Dual-pass Copper Bush	8	
M3*25MM Dual-pass Copper Bush	2	



M3*30MM Dual-pass Copper Bush	4	
M3*6MM Round Head Nuts	26	
M3*8MM Round Head Screws	21	
M2.5*10MM Round Head Screws	2	
M2.5*10MM Flat Head Screws	3	
M2*8MM Round Head Screws	4	
M2*12MM Round Head Screws	6	
M2 Nickel Plated Nut	10	




M1.2*4MM Self-tapping Round Head Screws	12	
M3 Nickel Plated Nut	12	
M2.5*20MM Round Head Screws	2	
M2.5 Nickel Plated Self-locking Nuts	2	
M3 Nickel Plated Self-locking Nuts	14	
White Insulator	6	
Black Ties 3*100MM	10	



20cm 2.54 3pin F-F Dupont Line Eco-friendly	2	
M-F 15CM/40P/2.54/10 Dupont Line Eco-friendly	0.25	
HX-2.54 4P to Dupont Line 26AWG 200mm	1	
3*40MM Red and Black Screwdriver	1	
2.0*40MM Purple and Black Screwdriver	1	
M2+M3 Wrench	1	
KEYESTUDIO HM-10 Bluetooth-4.0 V3 Module	1	



Winding Pipe	1	
6-Slot AA Battery Holder with 15CM Lead	1	