

Bill of Materials

Project Name	Gesture Controlled Robotic Arm
Assembly Name	Power Drive and Gesture Control
Assembly Revision	1.1
Date of Approval	
Total Piece	66

S.NO	Part Name	Assemblies & Subassemblies	Part Description	Quantity	Procurement Details
1	LM7805CT	Power Drive	5V regulator	4	3 required in design
2	AMS1117-3.3	Gesture Control	3.3V regulator	2	1 required in design
3	ESP-32-WROOM	Power Drive and Gesture Control	MCU	2	
4	MPU-6050	Gesture Control	Gyroscope and accel	3	2 required in design
5	TTP223	Gesture Control	Touch Sensor	2	1 required in design
6	DRV8825	Power Drive	Stepper Motor Driver	1	
7	FLEX SENSOR 4.5" LENGTH	Gesture Control	Flex Sensors	4	2 required in design
8	10k ohm resistor	Gesture Control	resistor 1/4W	10	2 required in design
9	100uf	Power Drive	capacitors	4	2 required in design
10	220nf	Power Drive	capacitors	4	2 required in design
11	100nf	Power Drive and Gesture Control	capacitors	4	3 required in design
12	22uf	Gesture Control	capacitors	4	1 required in design
13	10uf	Gesture Control	capacitors	5	1 required in design
14	2.4k res	Power Drive	resistor 1/4W	4	2 required in design
15	LM2596S-5.0/NOPB	Power Drive	Buck Converter	1	
16	PCA9685	Power Drive	Servo Driver	1	
17	NEMA 17	Power Drive	Stepper Motor	1	
18	12V PSU	Power Drive	Power Supply	1	
19	3 Pin Cord	Power Drive	Power Supply wire	1	
20	Connectors	Power Drive and Gesture Control	Connectors for PCB	1	
21	Pin Headers	Power Drive and Gesture Control	Pin Headers for PCB	2	
22	Fuse and Fuse holder	Power Drive	Fuse (minimum 2.5A)	1	
23	MG995	Power Drive	Servo	2	
24	SG 90	Power Drive	Servo	2	

