

3D printed parts				
No.	Name	Quantity	STEP FILES Links	STL FILES Links
1	base cover	1	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/cover.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/cover.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/cover.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/cover.stl</a>
2	base of the base motor	1	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/baseofbasemotor.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/baseofbasemotor.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/baseofbasemotor.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/baseofbasemotor.stl</a>
3	bottom of the gear box 17	3	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/gearbox17.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/gearbox17.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/gearbox17.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/gearbox17.stl</a>
4	bottom of the gear box 34	3	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/gearbox34.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/gearbox34.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/gearbox34.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/gearbox34.stl</a>
5	Central disk	6	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/centraldisk.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/centraldisk.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/centraldisk.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/centraldisk.stl</a>
6	Common shaft 1	6	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/commonshaft1.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/commonshaft1.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/commonshaft1.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/commonshaft1.stl</a>
7	Common shaft 2	6	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/commonshaft2.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/commonshaft2.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/commonshaft2.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/commonshaft2.stl</a>
8	Cycloidal 1	6	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/cycloidal1.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/cycloidal1.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/cycloidal1.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/cycloidal1.stl</a>
9	Cycloidal 2	6	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/cycloidal2.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/cycloidal2.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/cycloidal2.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/cycloidal2.stl</a>
10	Elbow holder supporter	2	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowholderstepholder.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowholderstepholder.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowholderstepholder.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowholderstepholder.stl</a>
11	Elbow holder	2	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowholderstepholder.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowholderstepholder.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowholderstepholder.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowholderstepholder.stl</a>
12	Elbow motor holder	1	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowmotorholder.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowmotorholder.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowmotorholder.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowmotorholder.stl</a>
13	Elbow output shaft extention	2	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowoutputshaftextention.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowoutputshaftextention.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowoutputshaftextention.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowoutputshaftextention.stl</a>
14	Elbow output shaft	1	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowoutputshaft.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowoutputshaft.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowoutputshaft.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowoutputshaft.stl</a>
15	Elbow pulley holder	1	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowpulleyholder.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/elbowpulleyholder.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowpulleyholder.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/elbowpulleyholder.stl</a>
16	Nema 17 motor shaft	3	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/nema17motorshaft.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/nema17motorshaft.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/nema17motorshaft.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/nema17motorshaft.stl</a>
17	Nema 34 motor shaft	3	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/nema34motorshaft.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/nema34motorshaft.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/nema34motorshaft.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/nema34motorshaft.stl</a>
18	output shaft	4	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/outputshaft.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/outputshaft.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/outputshaft.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/outputshaft.stl</a>
19	shoulder base	1	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/shoulderbase.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/shoulderbase.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/shoulderbase.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/shoulderbase.stl</a>
20	Shoulder output shaft	1	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/shoulderoutputshaft.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/shoulderoutputshaft.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/shoulderoutputshaft.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/shoulderoutputshaft.stl</a>
21	top of the gear box	6	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/topofthegearbox.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/topofthegearbox.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/topofthegearbox.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/topofthegearbox.stl</a>
22	Weist2,3 motor holder	2	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/weist23motorholder.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/weist23motorholder.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/weist23motorholder.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/weist23motorholder.stl</a>
23	Wrist1 motor holder	2	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/wrist1motorholder.step">https://github.com/oppomo7amed/robotarm/blob/main/stepfiles/wrist1motorholder.step</a>	<a href="https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/wrist1motorholder.stl">https://github.com/oppomo7amed/robotarm/blob/main/stlfiles/wrist1motorholder.stl</a>

## MOTORS

No.	Name	Code	For	Link	Founder
1	Nema34	34B	Base	<a href="https://www.digikey.com/en/products/detail/lin-engineering/34B">https://www.digikey.com/en/products/detail/lin-engineering/34B</a>	DigiKey
2	Nema34	34S	Shoulder	<a href="https://www.digikey.com/en/products/detail/lin-engineering/34S">https://www.digikey.com/en/products/detail/lin-engineering/34S</a>	DigiKey
3	Nema34	34E	Elbow	<a href="https://www.digikey.com/en/products/detail/lin-engineering/34E">https://www.digikey.com/en/products/detail/lin-engineering/34E</a>	DigiKey
4	Nema17	17W1	Wrist1	<a href="https://www.digikey.com/en/products/detail/sky-high-robotics/17W1">https://www.digikey.com/en/products/detail/sky-high-robotics/17W1</a>	DigiKey
5	Nema17	17W2	Wrist2	<a href="https://www.digikey.com/en/products/detail/sky-high-robotics/17W2">https://www.digikey.com/en/products/detail/sky-high-robotics/17W2</a>	DigiKey
6	Nema17	17W3	Wrist3	<a href="https://www.digikey.com/en/products/detail/sky-high-robotics/17W3">https://www.digikey.com/en/products/detail/sky-high-robotics/17W3</a>	DigiKey

## Mechanical Components

No.	Name	Code	Total quantity	Discretion	Link	Founder
1	Bearing	B304207	30	bearing for the shafts of the motors	<a href="https://www.mcmaster.com/5972K159/">https://www.mcmaster.com/5972K159/</a>	McMaster
2	Bearing	B030804	60	bearing for the gaer boxes of the motors	<a href="https://www.mcmaster.com/7804K126/">https://www.mcmaster.com/7804K126/</a>	McMaster
3	Bearing	B759510	6	bearing for the output of gaer boxs	<a href="https://www.mcmaster.com/6656K243/">https://www.mcmaster.com/6656K243/</a>	McMaster
4	Bearing	B11014016	6	bearing for the output of gaer boxs	<a href="https://www.amazon.com/ACROPIX-Bearings-95x125mm/dp/B01N1QZ8V8">https://www.amazon.com/ACROPIX-Bearings-95x125mm/dp/B01N1QZ8V8</a>	amazon
5	Bearing	B11017028	1	bearing for the base plate	<a href="https://www.amazon.com/ACROPIX-Bearings-80x100mm/dp/B01N1QZ8V8">https://www.amazon.com/ACROPIX-Bearings-80x100mm/dp/B01N1QZ8V8</a>	amazon
6	Bearing	B061104	2	Bearing for the Elbow link	<a href="https://www.amazon.com/uxcell-MR106-2RS-Groove-Ball-Bearing/dp/B00006H110">https://www.amazon.com/uxcell-MR106-2RS-Groove-Ball-Bearing/dp/B00006H110</a>	amazon
7	Bearing	B061204	4	bearinf foe elbow joint	<a href="https://www.mcmaster.com/7804K112/">https://www.mcmaster.com/7804K112/</a>	McMaster
8	Bearing Sleeve	BS061010	42	Bearing sleeve for the cycloidal dsiks	<a href="https://www.mcmaster.com/2867T114/">https://www.mcmaster.com/2867T114/</a>	McMaster
9	Belt Pulley	BP337033	2	Pulley for tje Elbow belt	<a href="https://www.mcmaster.com/6495K512/">https://www.mcmaster.com/6495K512/</a>	McMaster
10	Bracket	BRACKET34	2	Shoulder & Elbow bracket	<a href="https://www.amazon.com/Stepper-Motor-Mounting-Bracket/dp/B01N1QZ8V8">https://www.amazon.com/Stepper-Motor-Mounting-Bracket/dp/B01N1QZ8V8</a>	amazon
11	Bracket	BRACKET17	4	Wrist brackets	<a href="https://www.amazon.com/STEPPERONLINE-Mounting-Bracket/dp/B01N1QZ8V8">https://www.amazon.com/STEPPERONLINE-Mounting-Bracket/dp/B01N1QZ8V8</a>	amazon
12	Belt	Belt905	1	Belt for the elbow	<a href="https://www.mcmaster.com/6484K407/">https://www.mcmaster.com/6484K407/</a>	McMaster
13	Shaft	Sh0618	42	Bearing sleeve shafts	<a href="https://www.mcmaster.com/93600A682/">https://www.mcmaster.com/93600A682/</a>	McMaster
14	Shaft	Sh0326	30	centrale disk shafts	<a href="https://www.mcmaster.com/91595A387/">https://www.mcmaster.com/91595A387/</a>	McMaster
15	Shaft	Sh0626	2	shaft for the elbow support link	<a href="https://www.mcmaster.com/91585A398/">https://www.mcmaster.com/91585A398/</a>	McMaster
16	Shaft	Sh06150	1	shaft for the elbow joint	<a href="https://www.mcmaster.com/5033N123/">https://www.mcmaster.com/5033N123/</a>	McMaster
17	Shaft	Sh05340	1	Wrist 1 shaft 340mm or 13.4"	<a href="https://www.mcmaster.com/89325K112/">https://www.mcmaster.com/89325K112/</a>	McMaster
18	coupling	coupling	1	Wrist1 coupling	<a href="https://www.mcmaster.com/3613N57/">https://www.mcmaster.com/3613N57/</a>	McMaster
19	Nut	NutM4	60	T slot nut M4	<a href="https://www.mcmaster.com/90510A231/">https://www.mcmaster.com/90510A231/</a>	McMaster
20	M3 Screw & Nut	M03	27	<b>24</b> Screws& Nuts for the 3D printed shafts <b>80mm</b>	<b>24</b> Screws& Nuts for the 3D printed shafts <b>13mm</b>	
21	M4 Screw & Nut	M04				.
22	M6 Screw & Nut	M06				.