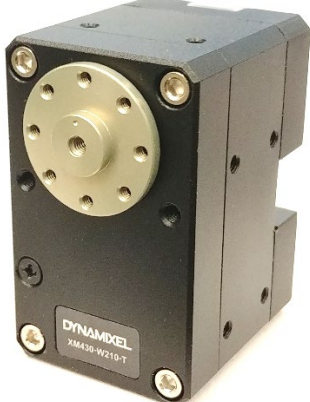




Parts List

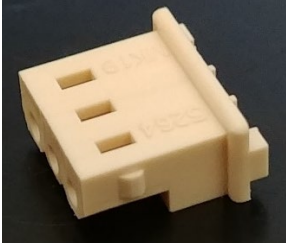




Leg

Part	Motor	Idler	Ball bearings
Model	Dynamixel XM430-W210-T	Robotis HN12-I101 set	SMR128ZZ A5
Quantity	12 (2 per leg)	12 (2 per leg)	12 (2 per leg)
Image			

Custom Electronics


Wires

For connection ports

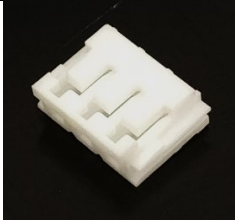
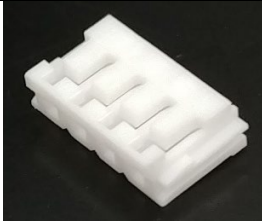

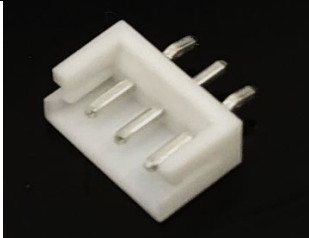
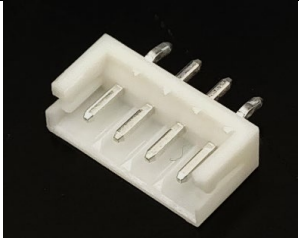
Part (for:)	Connector housing		
	Power board	Leg motor	Connection port
Model	Molex 0050375033	Molex 0510650300	Molex 0510650400
Quantity	6	6	12
Image			
Part (for:)	Terminal		
	Connection port; leg motor		Power board
Model	Molex 0502128000		Molex 0008701039
Quantity	54		18
Image			

Following are intertwined and go into terminal block




For power board / battery

<i>Part</i>	Battery connector
<i>Model</i>	Finware AMASS XT30U-M
<i>Quantity</i>	2
<i>Image</i>	

For regulators

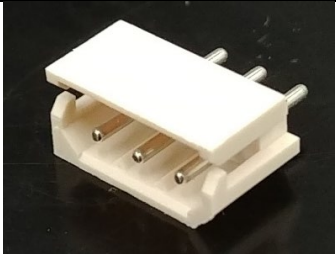
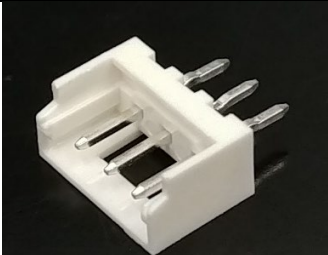

<i>Part (for:)</i>	Connector housing		Terminal
	5V regulator	7.5V regulator	Both regulators
<i>Model</i>	JST EHR-3	JST EHR-4	JST SEH-001T-P0.6
<i>Quantity</i>	1	1	7
<i>Image</i>			
<i>Part (for:)</i>	Connector header		
	5V regulator	7.5V regulator	
<i>Model</i>	JST B3B-EH-A(LF)(SN)	JST B4B-EH-A(LF)(SN)	
<i>Quantity</i>	1	1	
<i>Image</i>			

Connection Ports

Part	Spring-loaded connector (male)	Spring-loaded connector (female)	Connector header
Model	Mill-Max 823-22-008-10-002101	Mill-Max 419-10-208-00-006000	Molex 0532530470
Quantity	6	6	12
Image			

The connection ports also require a custom PCB. A CAD model and a circuit diagram are provided. Twelve of these PCBs need to be printed.

Power Board

Part	Connector header (leg)	Connector header (camera)	Terminal block
Model	Molex 0022035035	Molex 0532530370	TE Connectivity 282834-2
Quantity	7	1	2
Image			

The power board is a custom PCB. A CAD model and a circuit diagram are provided. Only one of these PCBs is required.

Body

Orange Pi Lite

SD card (16 GB)

Camera

U2D2 dongle

Voltage regulators (7.5V, 5V)

Other necessary stuff

22 AWG wire

18 AWG wire (for battery connector)

(Wire with female connector for orange pi)

Solder

Soldering iron

Screws

Magnets

Wire crimper

Wire cutter/stripper

Allen key: M2, M2.5, M3

Pliers

3d printer + material

Heat shrink / tape

Hot glue gun