

BOM	Product/Project: Quadruped V1.0	https://www.printables.com/@TomKnox			
	Revision date: 2025-11-04				
Level	Description	ALIEXPRESS	AMAZON	Qty	Description
>	Leg Linkage Mechanism				
>>	Servo Motors	ALIEXPRESS LINK	AMAZON Link	12	180 degrees, 35kg (Approx 49.5x20,2x40mm)
>>	Raspberry Pi 4 Model B	ALIEXPRESS LINK	AMAZON Link	1	8gb Ram
>>	LiPo Battery	ALIEXPRESS LINK	AMAZON Link	1	4000mAh 4S 45~90C Lipo Pack w/XT-90 (You can change to the XT-90 connect later)
>>	IMU	ALIEXPRESS LINK	AMAZON Link	1	Integrated Measuring Unit
>>	Raspberry Pi Breakout Board	ALIEXPRESS LINK	AMAZON Link	1	Made by Dfrobot
>>	Fan	ALIEXPRESS LINK	AMAZON Link	2	
>>	Servo Driver PCA9685	ALIEXPRESS LINK	AMAZON Link	1	To control servo motors, via I2C interface
>>	Arduino Nano	ALIEXPRESS LINK	AMAZON Link	1	For IMU, Battery sensing, LCD screen
>>	DC to DC (Buck) converter 20A	ALIEXPRESS LINK	AMAZON Link	1	Adjustable, set to ~7V in Dingo
>>	Power Distribution PCB	Order PCB HERE		1	Make sure to chose PCB + Assembly
>>	Orange Acrylic			1	Adding STEP + DXF in case you cant print this.
>	Body Construction				
>>	LCD Screen	ALIEXPRESS LINK	AMAZON Link	1	1.47 inch
>>	DC to DC (buck) converter 3A	ALIEXPRESS LINK	AMAZON Link	1	For fans
>>	Emergency Stop Switch	ALIEXPRESS LINK	AMAZON Link	1	3a at 12-220V rated
>>	32GB MicroSD card	ALIEXPRESS LINK	AMAZON Link	1	32GB is maximum Pi supports
>	Computing				
>>	Bearing	ALIEXPRESS LINK	AMAZON Link	4	6705-2RS 25X32X4
>>	Thrust Bearings (legs)	ALIEXPRESS LINK	AMAZON Link	1	F4-10M 4x10x4mm
>>	Bearing	ALIEXPRESS LINK	AMAZON Link	20	684ZZ Mini Deep Groove Ball Bearing 4x9x4mm
>>	Servo horns	ALIEXPRESS LINK	AMAZON Link	4	RC Car Steering Servo Horn Arm 25T Teeth Long
>>	DC to DC (Buck) converter 4A	ALIEXPRESS LINK	AMAZON Link	1	For all components except servos and fans
>>	RasbPi Cooling System	ALIEXPRESS LINK	AMAZON Link	1	
>>	Arduino Nano Breakout Board	ALIEXPRESS LINK	AMAZON Link	1	
>	Power Supply and Management				
>>	Terminal Blocks	ALIEXPRESS LINK	AMAZON Link	8	1935776
>>	Heatsinks	ALIEXPRESS LINK	AMAZON Link	4	6mm, black. Cut in half for each leg motor
>>	GPIO Cable	ALIEXPRESS LINK	AMAZON Link	1	To connect Pi to its breakout board
>>	Servo Discs	ALIEXPRESS LINK	AMAZON Link	10	with screws.
>	PCB Parts				
>>	Magnets	ALIEXPRESS LINK	AMAZON Link	8	Used to hold fans in place
>>	Rod ends,Long	ALIEXPRESS LINK	AMAZON Link	4	S 3mm L30mm M3
>>	Rod long	ALIEXPRESS LINK	AMAZON Link	4	50mm long (cut if needed)
>>	Rod ends Short	ALIEXPRESS LINK	AMAZON Link	4	N 3mm L20mm M3
>>	Rod short	ALIEXPRESS LINK	AMAZON Link	2	16mm long (cut if needed)
>>	Logic Level Converter	ALIEXPRESS LINK	AMAZON Link	1	For adjusting voltage between the pi and the nano
>>	M3 threaded inserts	ALIEXPRESS LINK	AMAZON Link	1	Pack of 100, M3x04.6xL4.0
>>	XT60H Connector	ALIEXPRESS LINK	AMAZON Link	1	To connect LiPo to the robot
>>	On/off Switch	ALIEXPRESS LINK	AMAZON Link	1	20A at 14VDC rated
>>	Spring	ALIEXPRESS LINK	AMAZON Link	1	For battery latch mechanism. 35mm long x 7mm OD
>	Electrical				
>>	Male Connector (for peripherals)	ALIEXPRESS LINK	AMAZON Link	12	B2B-PH-K-S(LF)(SN)
>>	Digital Voltmeter	ALIEXPRESS LINK	AMAZON Link	1	DC 2.5-30V, used to measure batterv voltage
>>	Socket for Connectors	ALIEXPRESS LINK	AMAZON Link	25	SPH-002T-P0.55
>>	Threaded rods, long	ALIEXPRESS LINK	AMAZON Link	5	M3 x 110mm
>>	Female Connector (for peripherals)	ALIEXPRESS LINK	AMAZON Link	12	PHR-2
>>	Capacitor	ALIEXPRESS LINK	AMAZON Link	1	2200uF 16VDC Electrolytic RB Capacitor ,For servo board
>>	Threaded rods,short	ALIEXPRESS LINK	AMAZON Link	5	M3 x 25mm
>>	Reverse Polarity Protection Diode	ALIEXPRESS LINK	AMAZON Link	1	B160-13-F
>>	47k Resistor	ALIEXPRESS LINK	AMAZON Link	1	CRGCQ1206F47K
>	Misc				
>>	10k resistor	ALIEXPRESS LINK	AMAZON Link	1	CRGCQ0805F10K
>>	PS4 Controller	ALIEXPRESS LINK	AMAZON Link	1	
>>	Power Delivery Wire	ALIEXPRESS LINK	AMAZON Link	-	Minimum 12AWG, for wires expected to carry current above 2A and/or
>>	Connection Wire	ALIEXPRESS LINK	AMAZON Link	-	22-30AWG, recommend solid core, used for all other wires
>>	Ferrules	ALIEXPRESS LINK	AMAZON Link	-	Optional, if used need approx 20 across robot
>>	Heat Shrink	ALIEXPRESS LINK	AMAZON Link	-	Only small amount required, for covering exposed solid-core wires
>>	100k resistors	ALIEXPRESS LINK	AMAZON Link	-	For dividing the voltage at the buck converter so that it is readable by the
>>	M3 Nuts	ALIEXPRESS LINK	AMAZON Link	-	
>>	M3 Bolts	ALIEXPRESS LINK	AMAZON Link	-	
>	Filaments				
>>	Black ABS/ASA/PETG&PC Filament	ALIEXPRESS LINK	AMAZON Link	-	Approx 500g required
>>	Yellow ABS/ASA/PETG&PC Filament	ALIEXPRESS LINK	AMAZON Link	-	Approx 500g required
>>	Black PLA Filament	ALIEXPRESS LINK	AMAZON Link	-	Approx 750g required (includes 500g for the stand)
>>	White TPU Filament	ALIEXPRESS LINK	AMAZON Link	-	Approx 50g required, for feet
>	Tools				
>>	Crimp Tool	ALIEXPRESS LINK	AMAZON Link	1	
>>	Hex Key set	ALIEXPRESS LINK	AMAZON Link	1	
>>	Soldering Iron	ALIEXPRESS LINK	AMAZON Link	1	
>>	Wire cutter	ALIEXPRESS LINK	AMAZON Link	1	
>>	Wire stripper	ALIEXPRESS LINK	AMAZON Link	1	
>>	Precision Screwdriver Set	ALIEXPRESS LINK	AMAZON Link	1	
>>	Heat insert set	ALIEXPRESS LINK	AMAZON Link	1	
>>	Heat insert tip - set	ALIEXPRESS LINK	AMAZON Link	1	
>>	Soldering Iron TS101	ALIEXPRESS LINK	AMAZON Link	1	

>	3D printed components		
>>	0001-0100 - QuadrupedTom		QTY
>>	0101 - BottomStructuralSupport	Secondary (Yellow)	1
>>	0001-0102 - TopCover	Secondary (Yellow)	1
>>	0001-0103 - Front Cover	Secondary (Yellow)	1
>>	0001-0104 - FrontStructuralSupport	Primary (Black)	1
>>	0001-0105 - TopStructuralSupport	Secondary (Yellow)	1
>>	0001-0106 - RearStructuralSupport	Secondary (Yellow)	1
>>	0001-0107 - LCDbracket	Primary (Black)	1
>>	0001-0108 - BackCover	Secondary (Yellow)	1
>>	0001-0109 - Stand (Optional)	Primary (Black)	1
>>	0001-0110 - RearLeftFanBracket	Primary (Black)	1
>>	0001-0111 - RearRightFanBracket	Primary (Black)	1
>>	0001-0112 - FrontLeftFanBracket	Primary (Black)	1
>>	0001-0113 - FrontRightFanBracket	Primary (Black)	1
>>	0001-0114 - FanHousingBracket	Primary (Black)	2
>>	0001-0115 - RightServoHousing	Primary (Black)	2
>>	0001-0116 - LeftServoHousing	Primary (Black)	2
>>	0001-0117 - MiddleBracketLeftSupport	Primary (Black)	1
>>	0001-0118 - MiddleBracketRightSupport	Primary (Black)	1
>>	0001-0119 - MiddleBracket	Primary (Black)	1
>>	0001-0120 - IMU Buck Bracket	Primary (Black)	1
>>	0001-0201 - RightSideCover	Secondary (Yellow)	1
>>	0001-0301 - LeftSideCover	Secondary (Yellow)	1
>>	0001-0401 - BatteryCover	Secondary (Yellow)	1
>>	0001-0402 - BatteryLacth	Secondary (Yellow)	2
>>	0001-0403 - BatterySupport	Secondary (Yellow)	1
>>	0001-0404 - BatteryFlapRodSupport	Secondary (Yellow)	1
>>	0001-0501 - RightUpperLeg	Secondary (Yellow)	2
>>	0001-0502 - RightLowerLeg	Secondary (Yellow)	2
>>	0001-0503 - RightServoCam	Primary (Black)	2
>>	0001-0504 - Foot	TPU	4
>>	0001-0505 - ServoWasher	Secondary (Yellow)	4
>>	0001-0601 - LeftUpperLeg	Secondary (Yellow)	2
>>	0001-0602 - LeftLowerLeg	Secondary (Yellow)	2
>>	0001-0603 - LeftServoCam	Primary (Black)	2