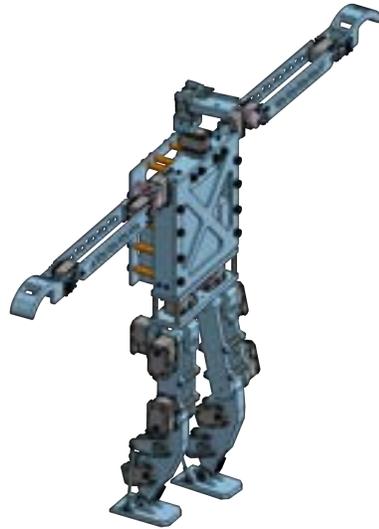


# Hardware Specifications for Ultrum



Name	Ultrum
Height	0.85m
Weight	17.4lbs
Number of DoF	20
Sensors Used	Adafruit_BNO055_AP214, Adafruit, LSM6DSOX, Adafruit LIS3MDL, Logitech C930e
Primary Computing Unit	Jetson Nano
Materials used for Frame	PLA, Aluminum
Electronics	XL4015 (Buck Converter), 2 Custom PCBs, STM32L4 Discovery Board, MIKROE-4156 (UART to RS485)
Battery	4 x 7.4V 80C LiPo

Dynamixel <u><a href="#">RX-64</a></u>	Voltage 14.8	Stall Current 2.1A	Wattage 31.08W
Dynamixel <u><a href="#">AX-12A</a></u>	Voltage 11.1	Stall Current 1.5A	Wattage 16.65W

Subsystem	Position	Actuator	Wattage (W)	Stall Torque (Nm)	rev/min (no load)
<b>Head</b>	Head Pitch	AX-12A	16.65	0.2	59
	Head Yaw	AX-12A	16.65	0.2	59
<b>Arm</b>	Shoulder Yaw	AX-12A	16.65	0.2	59
	Shoulder	AX-12A	16.65	0.2	59
	Elbow	AX-12A	16.65	0.2	59
<b>Legs</b>	Hip Roll	RX-64	31.08	4.0	49
	Hip Pitch	RX-64	31.08	4.0	49
	Hip Yaw	RX-64	31.08	4.0	49
	Knee	RX-64	31.08	4.0	49
	Ankle Roll	RX-64	31.08	4.0	49
	Ankle Pitch	RX-64	31.08	4.0	49