

Version	Aiengo add Lidar	Aliengo Standard	A1 explorer version	A1 Standard
Low Level Control Board/OS	soft realtime OS	soft realtime OS	soft realtime OS	soft realtime OS
High Level Control Board/OS	soft realtime OS	soft realtime OS	soft realtime OS	soft realtime OS
Navigation/Streaming OS	Ubuntu 18.04	Ubuntu 18.04	18.04 (Melodic)	16.04(kinetic)
Dimension	65cm*31cm*60cm(Inaccurate)	65cm*31cm*60cm(Inaccurate)	50cm*30cm*40cm(Inaccurate)	50cm*30cm*40cm(Inaccurate)
Weight	around 21kg	around 21kg	around 12.5kg	around 12.5kg
Payload	12kg	12kg	5kg	5kg
Joint torque related	see below chart			
Onboard computer data	see below chart			
Max Speed	6km/h	6km/h	11km/h	11km/h
Payload	10KG	10KG	5kg	5kg
Obstacle Passing	less than 18CM	less than 18CM	less than 12CM	less than 12CM
Ground Clearance	around 35CM		around 20CM	
Climbing Ability	25 to 30°	25 to 30°	25 to 30°	25 to 30°
sensor	Intel real sense D435*2 and intel realsense odometer *1		Intel real D435i * 1	

	support install 2D-lidar and 3D-lidar			
endurance time	see below			
Normal life	210mins	210mins	55mins	55mins
Keep walking	120mins	120mins	30mins	30mins
Standing still	270mins	270mins	65mins	65mins
Sleep mode	320mins	320mins	120mins	120mins
Turning Radius	0			
IP rating	Not yet protected against rain or dust. Robot built-in cable of the fuselage, it can support IP54 or higher in the future. (at least next year)		Not yet protected against rain or dust.	
more explanation:	AlienGo, the main industry landing (such as all-terrain inspection, substation inspection, construction surveying and mapping, etc.) is used as a forward-looking technology pre-research for industry landing.		A1, focusing on education and scientific research, entertainment and cool play. It is suitable for scientific research, laboratory construction, robotics/artificial intelligence course construction of various engineering colleges.	

	Controller	OS	RAM	ROM
A1	Motion main control: Broadcom quad-core	Ubuntu16.04	4G	32G
	Perception control: Raspberry Pi 4	Raspi buster+ROS	4G	32G
A1 explorer	Motion main control: Broadcom quad-core	Ubuntu16.04	4G	32G
	Perception master: Nvidia TX2	Ubuntu18.04+ROS	8G	32G
Aliengo	Motion main control: Intel core I7 or I5	Ubuntu16.04	4G	64G
	Perception master: Nvidia TX2	Ubuntu18.04+ROS	8G	32G
Joint torque related				

	A1 robot	Aliengo Robot
Onboard computer data		
maximum torque	33.5NM	40NM
maximum joint velocity	21rad/s	26.5rad/s
weight	605 g	round 900 g
Joint reduction ratio	around 9	around 10
Motor encoder resolution	15bit	15bit
Encoder for Each Joint	Motor Encoder × 1	Motor Encoder × 1, Output Encoder × 1
Rated power motor with gear (around 24V)	110W	160W
Peak power motor with gear (around 24V)	420W	700W
Reducer Wear Protection	none	support
Excessive Torque Protection	none	support
All Motor Cables Built-in	none	support