

**Embedded Screen**  
(10.1 inch touchscreen)  
To get orders from staff by touch and to show facial expressions

**Sensors**  
3 x depth sensors, lasers class 1 and infrared to map the location and detect objects.

**Lidar**  
Certified PLB 220° light detection and ranging to measure distances and avoid collision.



500 mm

**Emergency Stop Button**  
To stop unexpected behaviour

**Speakers**  
(1W)  
To communicate and greet while fulfilling the orders

**LED Lights**  
(360° view)  
Different colors for indication of different status.

**Bumper**  
To absorb impact in a minor collision and stop the robot if need be

**Total max capacity: 30kg**

**Top Shelf**  
10kg weight sensor

**Mid Shelf**  
10kg weight sensor

**Bottom Shelf**  
20kg weight sensor



545 mm

**Top Button**  
To skip or to go home

**Two side Buttons**  
To pause and resume

**Power Button**

**Manual/Automatic Mode Button**

**Energy**  
Removable Battery & charger hatches

1113 mm



## Certification & Technical specifications



Plato is compliant with:  
**RoHS** (Restriction of hazardous substances in electrical and electronic equipment).  
**WEEE** (Waste Electronic and Electrical Equipment).

These robots typically perform tasks to improve the quality of life of intended users, irrespective of age or capability. It describes hazards associated with the use of these robots, and provides requirements to eliminate, or reduce, the risks associated with these hazards to an acceptable level [www.iso.org/standard/53820.html](http://www.iso.org/standard/53820.html)

<b>Product safety</b>	Machinery directive	These robots typically perform tasks to improve the quality of life of intended users, irrespective of age or capability. It describes hazards associated with the use of these robots, and provides requirements to eliminate, or reduce, the risks associated with these hazards to an acceptable level <a href="http://www.iso.org/standard/53820.html">www.iso.org/standard/53820.html</a>
	ISO 12100 & ISO 13849 & IEC 60204-1 & ISO 13482 - Risk Assessment & Design	
<b>Product EMC</b>	EMC directive	
	CISPR 14 & CISPR 32 & CISPR 35 IEC 61000-6-1 IEC 61000-6-3	
<b>Radio certification</b>	Radio equipment directive	
	Certification for Wifi and radio emission	
<b>IP42</b>	Protection class indoor	
	Protection against tools and small wires larger than 1 mm. Protection against water spray in vertical position (max 15°)	
<b>Charger safety</b>	Low voltage directive	
	IEC 60204-1 and IEC 60335-1 & IEC 60335-2-29	
<b>Battery safety</b>	VARTA manufacturer certification	
	IEC 62133-2:2017	
<b>Food contact</b>	CAMBRO Round tray	

Certification for removable tray



<b>Weight &amp; Payload</b>	Robot empty weight including battery	53 kg
	Max combined Payload: 30 kg	Top Shelf: 10 kg Middle shelf: 10 kg Bottom shelf: 20 kg
<b>Dimensions</b>	Length	545.5 mm
	Width	500 mm
	Height	1113.1 mm
<b>Working environment</b>	Operating temperature	5°C - 40°C
	Operating humidity	20% - 85% non-condensing
	Max mapping area	< 300 m <sup>2</sup> / 3220 square feet
	Max environment noise for voice commands	75 dB
<b>Storage conditions</b>	Storage temperature	-10°C to +60°C
	Storage humidity	90% max non-condensing
<b>Navigation</b>	Max speed	2.6 km/h (0.7m/s)
	Minimum space Width	Corridor or door must be minimum 65-70 cm width
	Slope	No (0° +/- 0.5°)
	Gap crossing	10 mm max
	Obstacle step	No step allowed
<b>Power</b>	Input voltage	30 VDC
	Input current	8 A
<b>Charger</b>	Input voltage	100 - 250 VAC
	Input frequency	50 - 60 Hz
	Charging cable length	1850 mm (72.8 in)
<b>Battery</b>	Model	Varta 75I2P
	Type	Ion-Lithium
	Energy	38.4 Ah / 995 Wh
	Average charging time	7 hours 30 minutes (0>100%)
	Discharging time	12h depending on use
<b>Radio module</b>	Protocols	802.11n/ac 2X2 MU-MIMO 2.4GHz/5GHz WiFi & Bluetooth Low Energy 5.x