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 needed

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.

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

Total max capacity: 30kg

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

Top Shelf
10kg weight sensor

Mid Shelf
10kg weight sensor

Bottom Shelf
20kg weight sensor

1113 mm
545 mm
500 mm

**Weight & Payload**
- Robot empty weight including battery: 53 kg
- Max combined Payload:
  - Top Shelf: 10 kg
  - Middle shelf: 10 kg
  - Bottom shelf: 20 kg

**Dimensions**
- Length: 545.5 mm
- Width: 500 mm
- Height: 1113.1 mm

**Working environment**
- Operating temperature: 5°C - 40°C
- Operating humidity: 20% - 85% non-condensing
- Max mapping area: < 300 m² / 3220 square feet
- Max environment noise for voice commands: 75 dB

**Storage conditions**
- Storage temperature: -10°C to +60°C
- Storage humidity: 90% max non-condensing

**Navigation**
- Max speed: 2.6 km/h (0.7 m/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

**Power**
- Input voltage: 30 VDC
- Input current: 8 A

**Charger**
- Input voltage: 100 - 250 VAC
- Input frequency: 50 - 60 Hz
- Charging cable length: 1850 mm (72.8 in)

**Battery**
- Model: Varta 7S12P
- Type: Ion-Lithium
- Energy: 38.4 Ah / 995 Wh
- Average charging time: 7 hours 30 minutes (0>100%)
- Discharging time: 12h depending on use

**Radio module**
- Protocols: 802.11n/ac 2X2 MU-MIMO 2.4GHz/5GHz, WiFi & Bluetooth Low Energy 5.x