

Slamtec General Robot Charging Station User Manual

Model: C1M5

Charging Station Indicator Status

Process	Preset Condition	LED Status	Description
Power On/off	Charging station power on	Red light keeps on	It indicates the charging station power on normally.
	Charging station power off	Light goes out	It indicates the charging station power off.
Automatic charging	Charging robot	Green breathing light keeps on	It indicates the robot is charging via charging electrodes.
	Fully charged	Green light keeps on	It indicates the robot is fully charged.
Emergency charging	Charging robot	Yellow breathing light keeps on	It indicates the robot is charging via emergency charging cable.
	Fully charged	Yellow light keeps on	It indicates the robot is fully charged.
Error status	Power on self-test error	Red light blinks quickly	Bumper error. Please check whether the charging electrodes are properly installed.
	Fuse error	Red breathing light keeps on	Self-healing fuse triggered, please press down to reset it.
	Operation error	Red & Green breathing light keeps on alternatively	Charging station error or robot error (if the robot is not connected with charging station, the charging station is not working properly).

Charging Station Port

Port	Parameters	Description
Charging port	100-240VAC,50/60 Hz	Used for providing power supply for charging station
Charging electrodes	25.5VDC 10A MAX	Used for charging robot platform automatically
Emergency charging port	25.5VDC 10A MAX	Used for charging robot platform in emergency situations, like charging electrode not working
Debug port	Serial port	Used for upgrading firmware of the charging station and debugging.

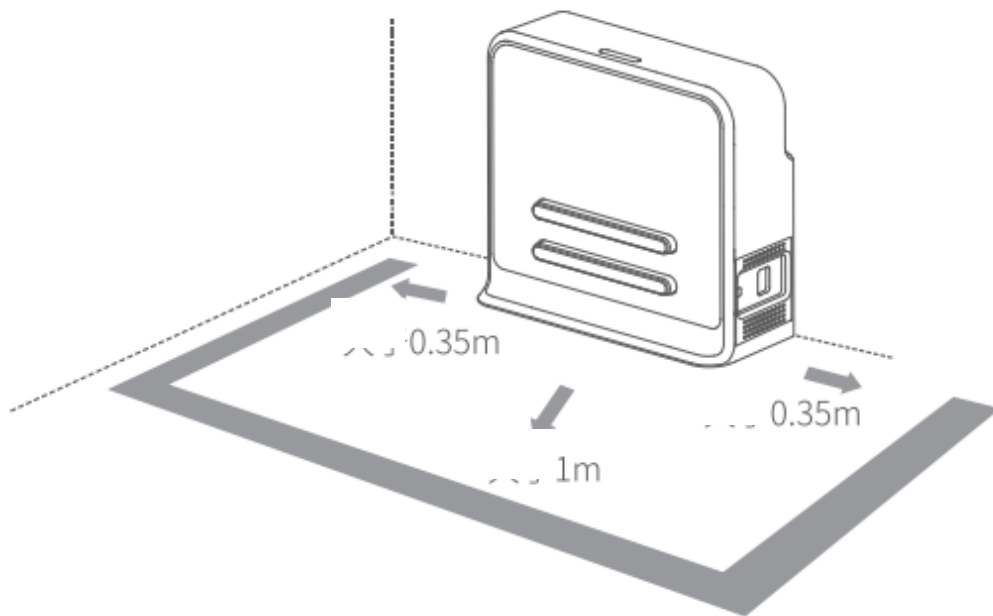
Miscellaneous

Item	Value/Description	
Mass & Volume	Dimension	360mm*150mm*320mm (Length*Width*Height) (without accessories)
	Weight	About 5kg
Operating Environment	Operating Temperature	0°C ~ 50°C
	Operating Humidity	30% ~ 70%
	Altitude	≤2000m

1. Charging Station Configuration

Slamtec robots realizes automatic return charging function through the charging station, so the placement and deployment of the charging station will affect the automatic return charging function. When the robot base returns to the charging station, it will generate a driving force, so it is recommended that the charging station be placed against the wall, and the wall meets the following conditions:

- The charger should fit the wall closely and there are no obstacles between them. The wall with skirting line is not recommended.
- The wall should not be made of transparent material like mirror or glass.
- The wall should be at least three times the width of the charging station.
- The wall should be a straight wall instead of a curved one.
- There should be more than 0.35 meters left on both sides and more than 1 meter in front of the charging station;



The charging station requires a 220V power supply and its external power supply wire is 1.5m in length. So it's better that there is a power port on the wall for the charging station (the power board is not recommended since it may cause danger due to messy wires).

The ground in front of the charging station should meet the following requirements:

- Open. There are no obstacles in front of the charging station (with the charging station as the center and within a radius of 2 meters from the center).
- Level. There is no slope on the ground.
- There is no soft carpet on the ground which leads robot sinking into it more than 2cm.

Please always launch robot from the charging station to ensure that it can recharge itself properly.

Note: if the charging station is moved to a different place when using robot, user should reset the position accordingly when loading the map. Please refer to the detailed interfaces description in our SDK document.

2. Charging

There are two ways to charge robot battery: automatic charging and manual charging. Before charging robot, please connect the charging station with 220V power supply with the power cable.

Automatic Charging

If using robot for the first time, please press the brake release button after the robot base is power on, then push it to the front of the charging station, and ensure their electrodes connecting well. At this time, the indicator on the top of the charging station breathes green, indicating robot is in charging status. Once robot is fully charged, the indicator is turns into steady green.

The robot base supports automatic recharging function. When the upper side system is developed and the automatic recharging interface is successfully invoked, the robot base will automatically go back to the charging station and start charging automatically.

Manual Charging

In some unexpected situations, like robot cannot recharge itself temporarily, user can use emergency charging cable to charge robot. Please use the emergency charging cable to connect the emergency charging port on the charging station and the charging port on robot

The indicator on the top of the charging station breathes yellow indicates the charging station starts charging for robot. Once robot is fully charged, the indicator is turns into steady yellow.

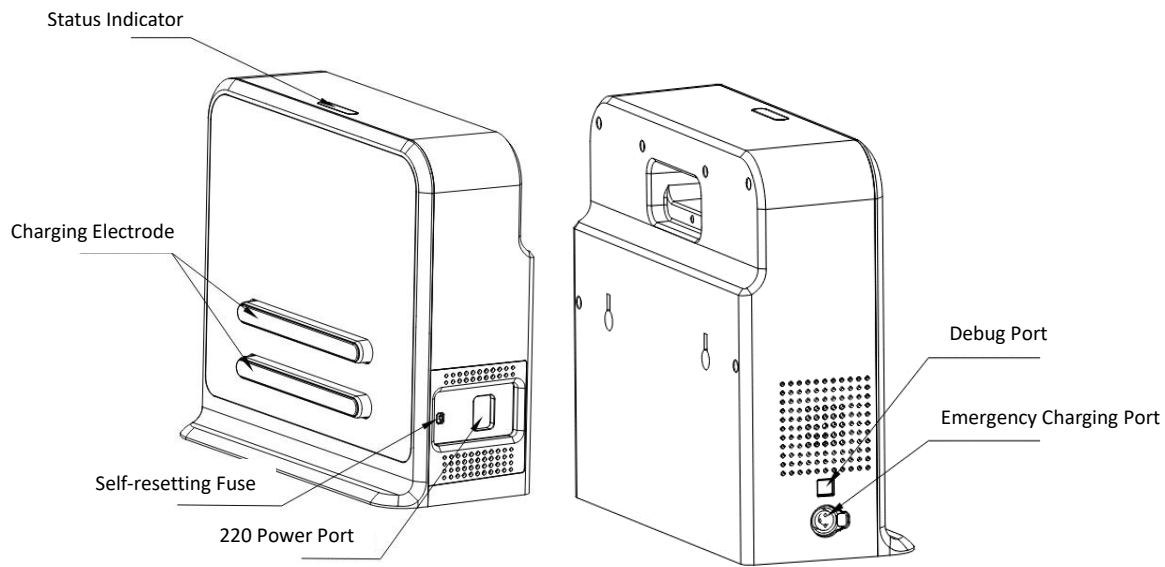
Caution: please do not use the charging station to charge any devices which are not authorized by SLAMTEC.

3. Caution:

- a) Please do not use the charging station in humid environment;
- b) Please do not use the charging station in current unstable environment;

Please do not use the charging station in the place near any inflammable and explosive articles,

Parts Introduction



Dimension

