Bellabot

WIIBOT

Part1: Bellabot brief introduction

1-1.Bellabot appearance

1-2. Environment requirements

Part2 ： Installation

2-1.Robot installation process (video)
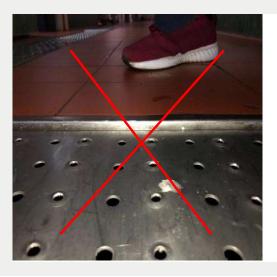
2-2.Create a map

2-3.Draw a map by installer

Bellabot appearance

1.Road pavement requirements

◆ Flatness: Road flatness ≤ **5mm**

◆ Slope: Slope ≤ **5°**, Otherwise it's easy to cause bumps, causing dishes to spill

◆ Width: The min passage width is 70cm, if the width ＞1.2m is better

◆ Road material: Terrazzo, plastic, carpet, iron plate; the thickness of carpet should be less than 10mm,the hard road should not be wet

2. Working area requirements

◆ **Working area**: Pay more attention to the long corridor and the empty area, robot easily lose positioning.

◆ **Special area**: The area near to elevator and stairs should be set the "**wall**" by installer on laptop to prevent accidents.
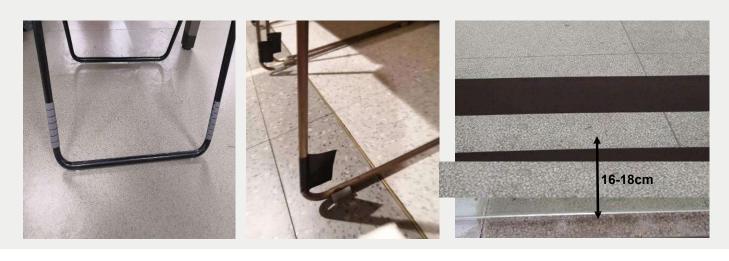
3. Running path requirements

◆ Lidar scanning is easy to miss the hollow and slim obstacles (diameter less than 20mm),like the serving cart, shelf, table and chair legs, etc. If there are obstacles mentioned above near to the running path, they need to be dealt with accordingly so that the lidar can stably identify such obstacles.

◆ If there are pure black obstacles, mirror and transparent glass at the height 30cm from the floor, which lidar is hard to identify, need to stick a dark sticker at a height of 16-18cm from ground.

Above steps must be finished before creating a new map

16-18cm
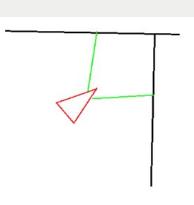
① **Facing to the corner**
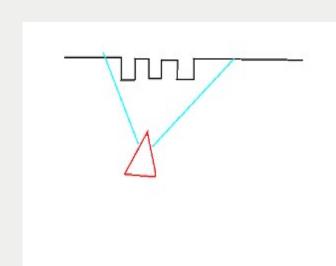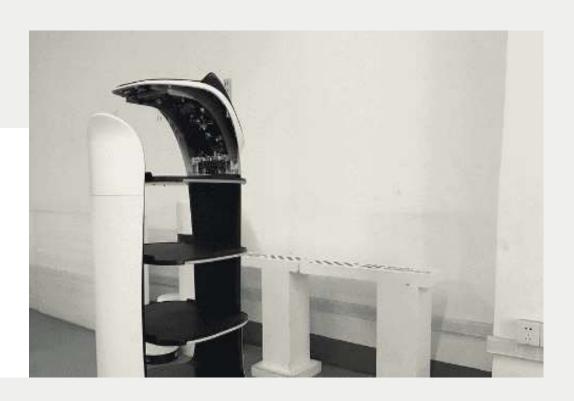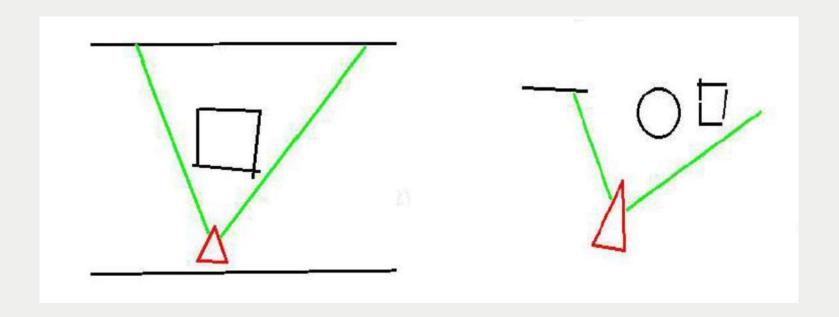
Samples of proper starting point
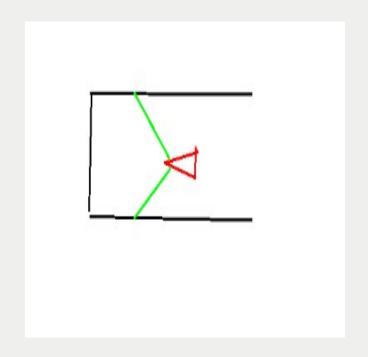
② Facing to the wall with special characteristics

③ Facing to the objects with fixed characteristics
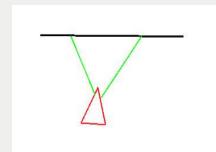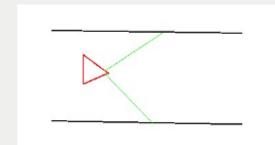
④ **Facing to the end of corridor**

WIIBOT Create maps
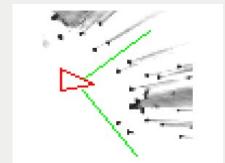
NOT

Clean wall

Facing to long corridor

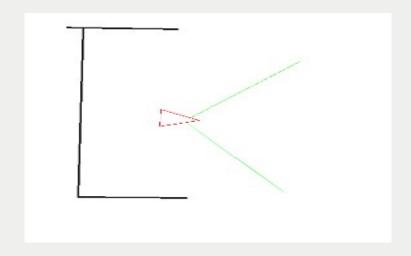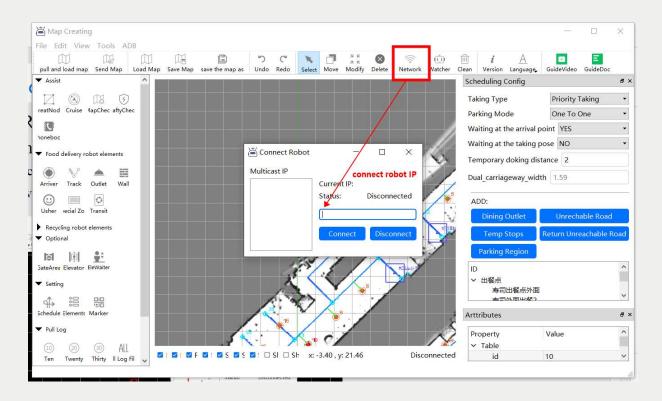**Facing to a completely mixed and disorderly environment**
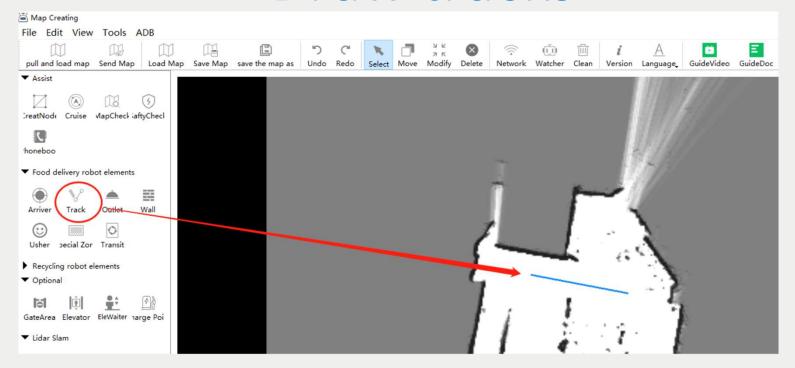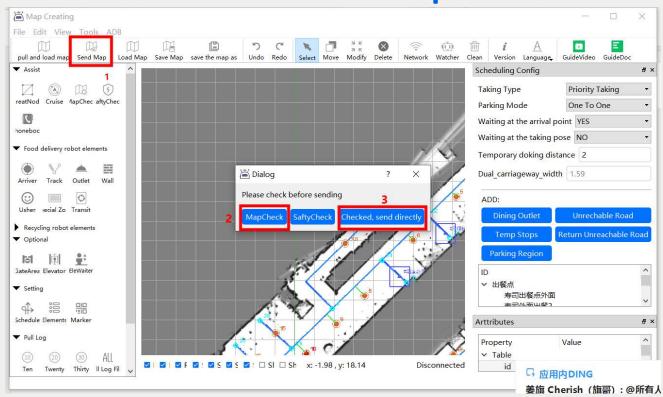
NOT

Facing to an open environment

Connect robot

Draw tracks
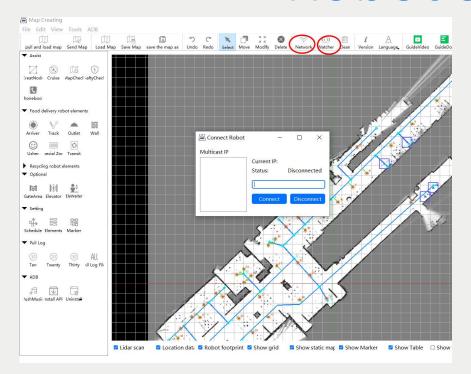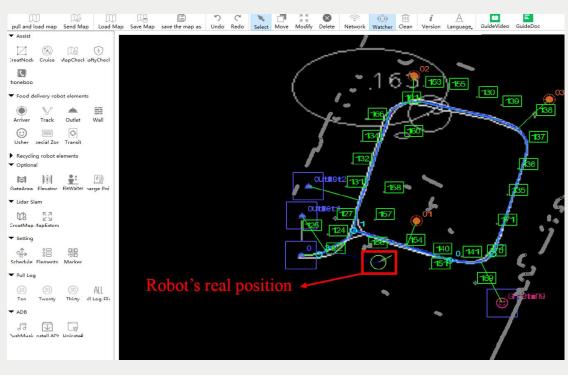
Send map

Robot surveillance

Robot's real position ←

Samples

√

× no crosspoint

× too close between two points

Samples

√ √ Nodes too close ✕ acute angle and nodes too close ✕
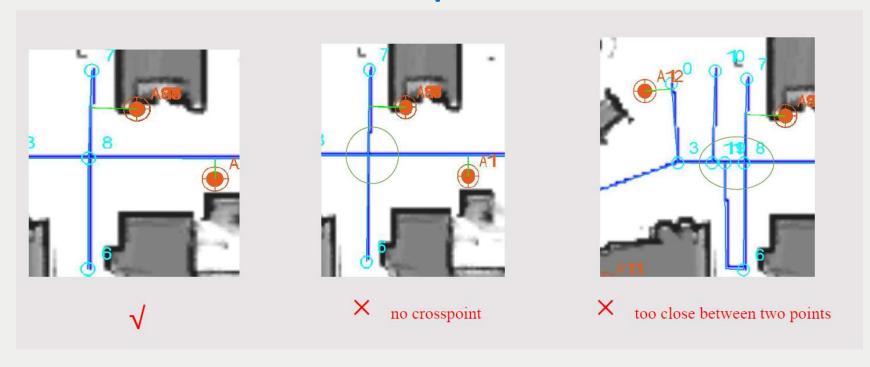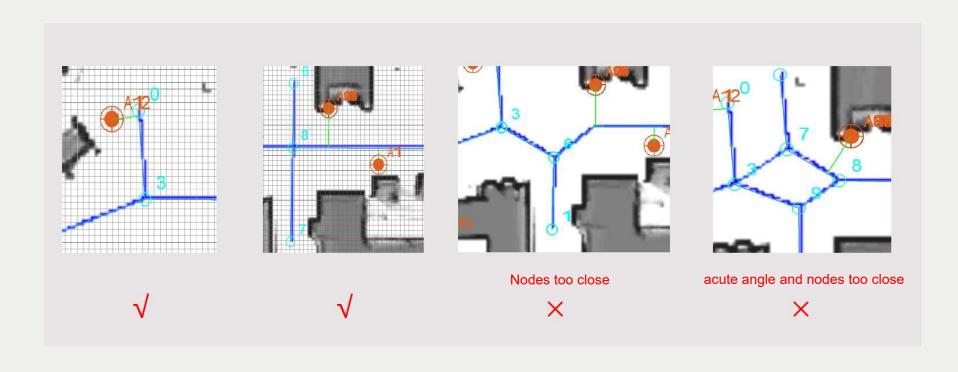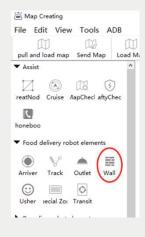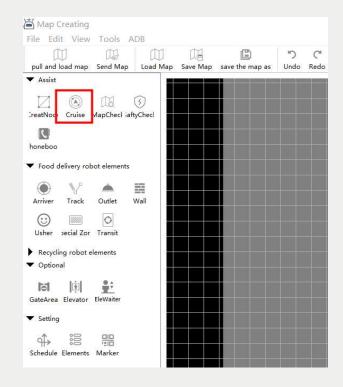
Virtual wall

◆ Set up a virtual wall to prevent the robot from overdriving to the edge of the road and causing accidents when avoiding obstacles.

◆ For example, some obstacles can not be scanned by laser radar, like hollow, black, transparent and small objects.

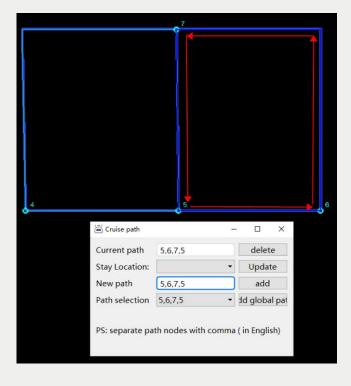◆ Setting up a virtual wall to help the robot run safely and efficiently

Cruise mode

Q&A

THANK YOU