

# ATEAGO UVC Disinfection ROBOT



X1-A

X1-B

X1-C

Y1

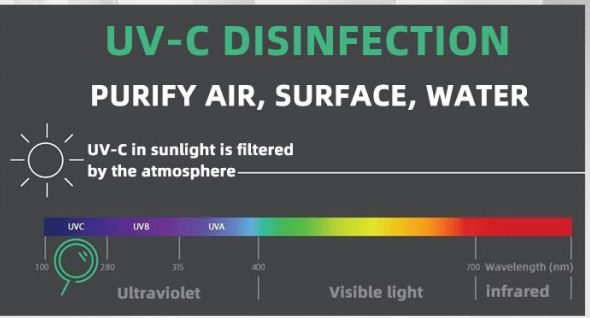
# 1.2 Product description

The ATEAGO X1 disinfection robot uses PHILIPS UV-C ultraviolet light source, and the inactivation rate of COVID-2019 is as high as 99.9999%. It has high efficiency, broad spectrum, thoroughness, no drug resistance and no secondary pollution. And other significant advantages, it is an efficient and environmentally friendly disinfection product.

## PHILIPS UV-C ultraviolet disinfection lamp

The shortest wavelength and highest energy, the inactivation rate is as high as 99.9999%

Research conducted jointly by Xin Nuofei and the National Emerging Infectious Disease Laboratory of Boston University shows that UV-C ultraviolet light source ((200–280 nm)) can effectively inactivate COVID-2019



CERTIFICATE



**CERTIFICATE OF CONFORMITY**  
EU - The Radio Equipment Directive (RED) -  
No. : CTB210413023REX-ZS

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<b>Applicant</b>	: Hangzhou ATEAGO Technology Co., Ltd
<b>Address</b>	: F3, Building NO.2 , Dayuan Road NO.1188, qingshan Lake Street, Linan Disttot, Hangzhou, 311305, China
<b>Manufacturer</b>	: Hangzhou ATEAGO Technology Co., Ltd
<b>Address</b>	: F3, Building NO.2 , Dayuan Road NO.1188, qingshan Lake Street, Linan Disttot, Hangzhou, 311305, China
<b>Product</b>	: CLEANING ROBOT, DISINFECTIION ROBOT, DELIVERY ROBOT, ROBOT CHA-3310
<b>Trade Name</b>	: <b>ATEAGO</b> Teamwork & Trust
<b>Model(s)</b>	: X1, Y1, G2, S3, H2, 01, 01, 01, 01, S3X
<b>Test Report No.</b>	: CTB210413023REX, CTB210413023RFK, CTB210413023RFK, CTB210413023RFK
<b>Test Standards</b>	: EN 62311:2006; EN 60335-2-2:2010+A1:2013+A11:2012 used in conjunction with EN 60335-1:2012+A11:2014+A13:2017+A14:2019; ETSI EN 300 328 V2.2.2 (2019-07); ETSI EN 301 893 V2.1.1 (2017-05); ETSI EN 301 489-1 V2.2.3 (2019-11); ETSI EN 301 489-17 V3.2.4 (2020-09); ETSI EN 301 489-3 V2.1.1 (2019-03)

The tests that base on the above designated product. Complies with the essential requirements of Directive 2014/53/EU relating to Electrical Equipment designed for use within Radio and telecommunications terminal equipment. The test results apply only to the particular sample tested and the applicative tests carried out. The CE markings as shown below can be affixed on product after manufacturer carry out all stipulation activities integrally of above mentioned Regulation (Directive) and preparation of necessary technical documentation as well as the conformity declaration. This statement is based on a single evaluation of sample of above mentioned product. It does not imply an assessment of the whole production process. Other relevant Regulation (Directive) requirement have to be observed.





Rita Xiao (Director)  
May. 12, 2021

CERTIFICATE

CERTIFICATE

EU CE certification

## 1.3 PHILIPS UVC TUBE

8000+ hours long life  
6m radius disinfection range  
180W high power



### Long service life

8000+ hours long service life



### 6m radius kill range

Disinfection radius is up to 6 meters, disinfection is more thorough



### 180W high power

6 PHILIPS UV tubes  
Lamp power 30W/pcs



### Convenient maintenance

Snap-in design, more convenient lamp installation

# 1.4 Product testing



**广东省微生物分析检测中心**  
GUANGDONG DETECTION CENTER OF MICROBIOLOGY

## 分析检测报告

REPORT FOR ANALYSIS

**报告编号** Report No. 20200214457801D

**样品名称** Name of Sample 紫外线消毒机器人的菌人  
UVC STERILIZING ROBOT

**委托单位** Applicant 杭州透格科技有限公司  
Hangzhou ATEAGO Technology Co., Ltd

**检测类型** Test Type 委托检测  
Entrusted Test

**单位地址** Address: 广州市先烈中路 101 号 201 室 404 号  
Building 01, No.201 Central Road, 101 Road, Guangzhou, China

**邮编** Postcode: 510670

**电话** Tel: (020)7217666

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**网址** Website: www.gdhw.com



**广东省微生物分析检测中心**  
GUANGDONG DETECTION CENTER OF MICROBIOLOGY

### 分析检测报告

REPORT FOR ANALYSIS

报告编号 (Report No.): 20200214457801D 检测物 (Detection Code): K17001

样品名称 Name of Sample	紫外消毒机器人的菌人 UVC STERILIZING ROBOT	检测类型 Test Type	委托检测 Entrusted Test
送检单位 Applicant	杭州透格科技有限公司 Hangzhou ATEAGO Technology Co., Ltd	送检地址 Address	浙江省杭州市余杭区 101 号 201 室 404 号 101 Building No.101, Central Road No.101, Hangzhou City, Huzhou, China
样品来源 Sample Source	客户送检 Submitted for Testing for the Applicant	样品数量 Sample Quantity	1 份 One
样品名称 Name and Unit of Sample	紫外线灯 UVC	样品状态 Sample Status	机器 Machine
委托日期 Sample Received Date	2020-12-08	检测完成日期 Completion Date	2021-01-04
检测依据标准 Test Standard and Method	《消毒技术规范》(卫生部 2002 年版) 第 11.4.1 条 Decontam. Standard for Decontam. (Ministry of Health, Address 2002, version 11.4.1, etc.)		
检测项目 Test Item	紫外线辐射剂量检测 Ultraviolet radiation amount, etc.		
检测结论 Test Conclusion	送检样品符合送检的法规标准及检测标准要求。 The test item of the sample(s) is attached to the page(s) of this report.		
备注 Remarks	送检单位: 浙江省杭州市余杭区 101 号 201 室 404 号 Hangzhou ATEAGO Technology Co., Ltd, Hangzhou City, Huzhou, China 检测日期: 2021-01-04 检测地点: 广东省广州市天河区先烈中路 101 号 201 室 404 号 2021-01-04, 2021-01-04, 2021-01-04, 2021-01-04 检测单位: 广东省微生物分析检测中心 Detection Unit: Guangdong Detection Center of Microbiology		

检测: 李朝月      审核: 梁清      批准: 许江华  
Editor:                  Verifier:                  Approver:



**广东省微生物分析检测中心**  
GUANGDONG DETECTION CENTER OF MICROBIOLOGY

### 分析检测报告

REPORT FOR ANALYSIS

报告编号 (Report No.): 20200214457801D

1. 空气消毒效率验证试验 (模拟地面沉降) Decontam. efficiency for air (Simulated Dead wt)

1.1 检测方法: 《消毒技术规范》(卫生部 2002 年版) 11.4.1.4

See method: Technical Standard for Decontam. (2002 Ministry of Health, Ed. Class 11.4)

2. 测试环境相对湿度 Decontam. relative humidity: 61%

测试环境温度 Decontam. temperature: 24°C

3. 测试结果 See result:

测试组名称 Test organism	检测时间 Test time	检测 结果 Test group	试验组空气中菌量 Air bacteria number of experimental group (Cfu/m <sup>3</sup> )	参照菌 Reference value (%)
白色念珠菌类 (Candida albicans effect) 001	10min	1	1.0 × 10 <sup>7</sup>	1
		2	1.2 × 10 <sup>7</sup>	1
		3	1.8 × 10 <sup>7</sup>	1
	15min	1	11	99.01
		2	23	99.99
		3	31	99.91


注: 本次测试结果为 0.1 秒紫外线辐射对空气中细菌的杀灭效果。  
Note: The result of bactericidal use will be obtained for effect of specified period, test is 0.1.

样品照片: photo of the sample



(0214457801D - Robot Sterilizer)

# 1.5 ROHS Test Report


Project No.: ZKT-2020122714R  
Page 1 of 13

## ROHS TEST REPORT

Report Reference No.:	ZKT-2020122714R
Date of issue:	Jan. 05, 2021
Total number of pages:	13
Testing Laboratory:	Shenzhen ZKT Technology Co., Ltd.
Address:	1/F, No.101, Building B, No. 8, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China
Applicant's name:	Hangzhou ATEAGO Technology Co., Ltd
Address:	F3, Building NO.2, Dayuan Road NO.1158, Qingshan Lake Street, Linan District, Hangzhou, 311305, China
Manufacturer's name:	Hangzhou ATEAGO Technology Co., Ltd
Address:	F3, Building NO.2, Dayuan Road NO.1158, Qingshan Lake Street, Linan District, Hangzhou, 311305, China
Test Requested	<b>Conclusion</b>
(1) RoHS Directive 2011/65/EU Annex II amending Annex (EU) 2015/863 and amending Annex (EU) 2017/2102 —Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDEs Content —Di(2-ethylhexyl) phthalate(DEHP), Benzylbutyl phthalate(BBP), Dibutyl phthalate (DBP), Dioctyl phthalate(DBSP) Content	<b>PASS</b>
Test Report Form No.:	--
Test Report Form(s) Originator:	ZKT Testing
Master TRF:	Dated: 2017-05
This test report is specially limited to the above client company and product model only. It may not be duplicated without prior written consent of ZKT Test.	
Test item description:	Spray disinfection robot
Trade Mark:	N/A
Model/type reference:	HBOT11A

Shenzhen ZKT Technology Co., Ltd.  
 1/F, No. 101, Building B, No. 8, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China  
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Project No.: ZKT-2020122714R  
Page 2 of 13

### Testing procedure and testing location:

Testing Laboratory:	Shenzhen ZKT Technology Co., Ltd.
Address:	1/F, No. 101, Building B, No. 8, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China
Date of Test:	Dec. 31, 2020- Jan. 05, 2021
Tested by (name + signature):	Doris Zhan 
Reviewer (name + signature):	Simon Gong 
Approved (name + signature):	Awen He 



Shenzhen ZKT Technology Co., Ltd.  
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Project No.: ZKT-2020122714R  
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**EUT Photo 5**



**EUT Photo 6**



Shenzhen ZKT Technology Co., Ltd.  
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# 2.1 Product Features



## TIMING DISINFECTION TASKS

Customize the disinfection time and execute it automatically Disinfection task, convenient and quick



## AUTONOMOUS OBSTACLE AVOIDANCE

Lidar sensor, automatic sensing Obstacles, stable and safe operation



## ULTRAVIOLET (SHORT WAVE)

254nm wavelength ultraviolet light technology Sterilization rate is as high as 99.9999%



## REMOTE INTELLIGENT CONTROL

Build navigation maps remotely and view machine operating data remotely



## AUTOMATIC RETURN TO CHARGING

Low battery automatically returns to charging, No need for human intervention



## PRECISE NAVIGATION AND POSITIONING

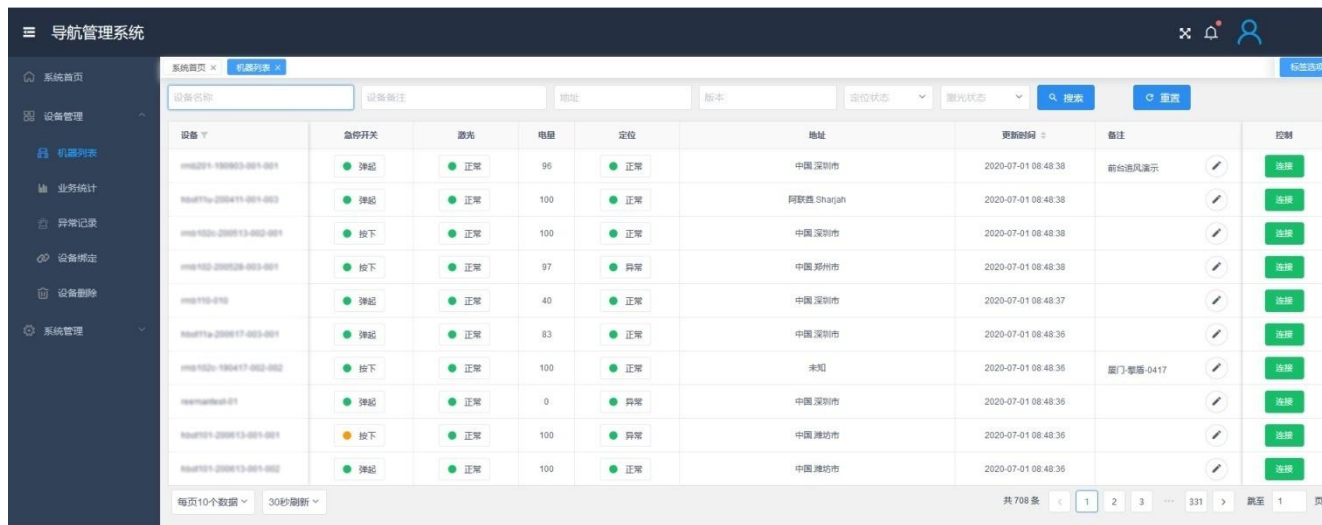
Obtain environmental information through lidar sensors for positioning and navigation.

## 2.2 Product Features



- Indoor autonomous mobile multi-point disinfection
- 40,000 square meters large area laser mapping to meet the use of large scenes
- Independent cloud service platform, remote navigation deployment, saving time and effort
- Infrared human body sensor, automatically turn off/on the light, avoiding obstacles and ultraviolet rays hurting the skin
- Timed disinfection function, automatic execution of disinfection tasks
- Laser SLAM and V-SLAM fusion, accurate map construction and positioning
- Automatic return to charging, no-man operation
- Second-level intelligent obstacle avoidance, indoor autonomous route planning
- 6 tubes of 90cm PHILIPS UV-C UV tubes
- 8000 hours long service life
- Shortwave 254nm sterilization lamp ultraviolet radiation, efficient disinfection and sterilization
- It has high efficiency, broad spectrum, thoroughness, no drug resistance and no secondary pollution, etc.
- UV disinfection conforms to [National Standard] GB 19258-2012 UV disinfection lamp

## 2.3 Cloud service platform



The screenshot displays the '导航管理系统' (Navigation Management System) interface. It features a sidebar with navigation options like '系统首页', '设备管理', '业务统计', '异常记录', '设备绑定', '设备删除', and '系统管理'. The main content area shows a table of robot devices with various status indicators and control buttons.

设备ID	急停开关	激光	电量	定位	地址	更新时间	备注	控制
ms1711-200813-001-001	弹起	正常	96	正常	中国 深圳市	2020-07-01 08:48:38	前台演示	连接
ms1711-200813-001-002	弹起	正常	100	正常	阿联酋 Sharjah	2020-07-01 08:48:38		连接
ms1711-200813-001-001	按下	正常	100	正常	中国 深圳市	2020-07-01 08:48:38		连接
ms1711-200813-001-001	按下	正常	97	异常	中国 郑州市	2020-07-01 08:48:38		连接
ms1711-010	弹起	正常	40	正常	中国 深圳市	2020-07-01 08:48:37		连接
ms1711-200817-001-001	弹起	正常	83	正常	中国 深圳市	2020-07-01 08:48:36		连接
ms1711-190417-001-002	按下	正常	100	正常	未知	2020-07-01 08:48:36	厦门-黎番-0417	连接
ms1711-001	弹起	正常	0	异常	中国 深圳市	2020-07-01 08:48:36		连接
ms1711-200813-001-001	按下	正常	100	异常	中国 潍坊市	2020-07-01 08:48:36		连接
ms1711-200813-001-002	弹起	正常	100	正常	中国 潍坊市	2020-07-01 08:48:36		连接

### Rapid deployment, time-saving and efficient

Through the cloud service platform, the robot is connected and controlled remotely, and the navigation map is constructed visually throughout the process, reducing the response time of operation and maintenance services, allowing the robot to be put into use in a shorter time, saving time and cost.



## 2.4 Remote deployment, Time-saving and efficient

### Intelligent UV disinfection lamp is efficient, safe and pollution-free

- Irradiated by 6 high-power UV lamps, effectively killing germs and viruses on the surface of the environment
  - Reach over 99.9999%, effectively reducing the chance of cross infection
- Remote intelligent control, self-defined disinfection time, automatically start disinfection task, no need to repeat settings
- Simple installation and deployment, autonomous disinfection path planning, real-time monitoring of operating data
- Infrared human body sensor, 360° omni-directional intelligent sensor, automatically turn off the light while sensing the human body, avoiding ultraviolet rays hurting the skin and other problems



Infrared human  
body induction  
(Optional)



Intelligent Cloud  
Service Platform



Scheduled  
disinfection tasks



Mobile multi-point  
disinfection

## 2.5 Custom disinfection method

- Indoor autonomous navigation
- Customized calibration disinfection position
- Set the stay time of the target point
- Automatic return to charging



Autonomously mobile multi-point disinfection, Philips UVC ultraviolet tube, 180W high power, independent planning of disinfection path, 6-meter radiation disinfection range, disinfection more thorough.

The infrared sensor automatically senses the human body and realizes the intelligent disinfection mode of [lights off when people come, and lights on when people leave], effectively preventing ultraviolet rays from harming the skin.

Timed disinfection: According to actual needs, you can customize the disinfection duration and disinfection week plan, and automatically perform disinfection tasks.

Automatic return to charging: When the power is lower than the minimum value, it will automatically return to the charging pile for charging without manual operation, which is convenient and quick.

Several disinfection target points can be calibrated according to actual needs, and the robot will automatically perform disinfection tasks according to the calibration sequence

## 2.6 Intelligent obstacle avoidance

### SLAM navigation algorithm + laser navigation + intelligent obstacle avoidance

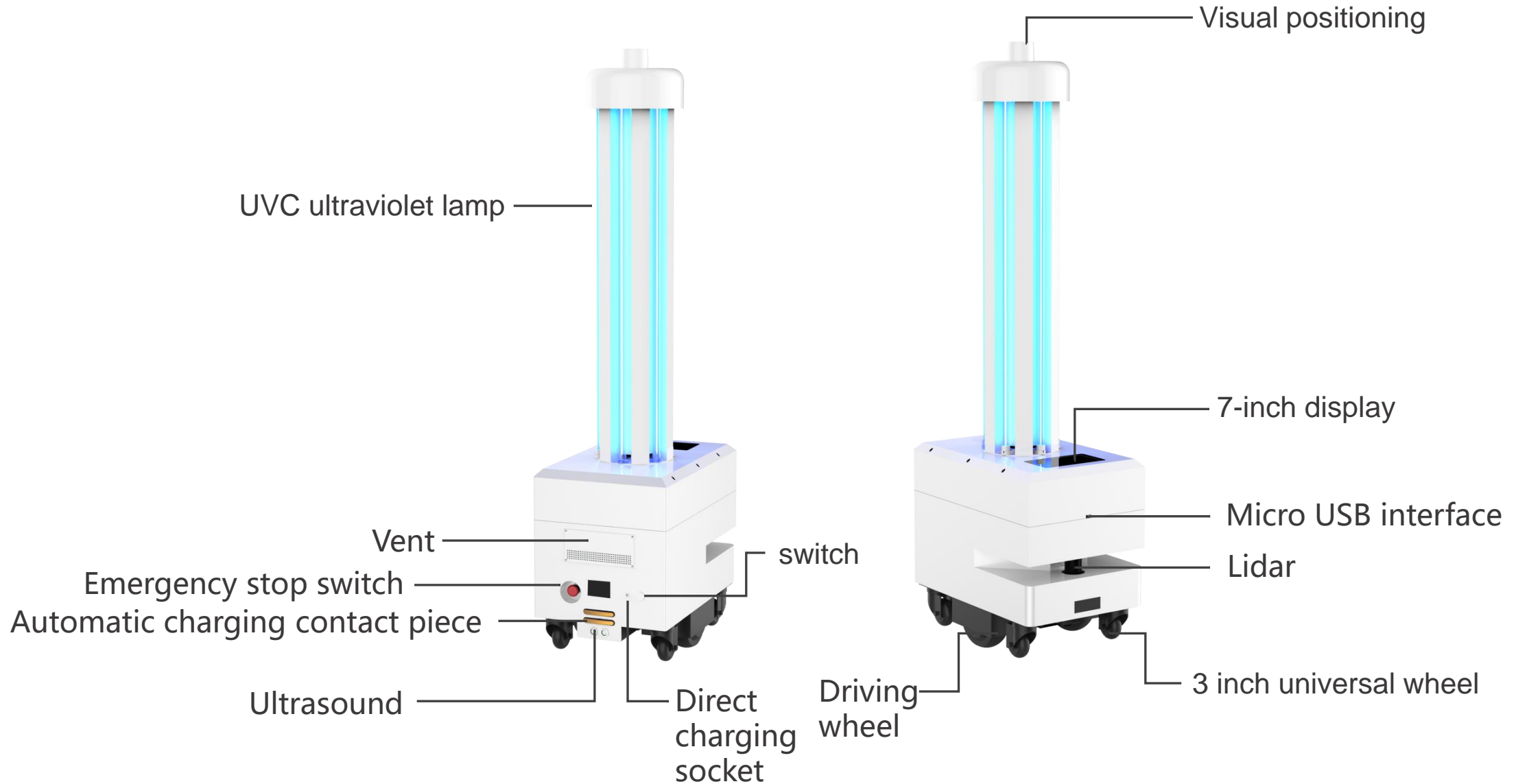
Laser SLAM and V-SLAM multi-sensor fusion technology, accurate indoor navigation and positioning, flexible obstacle avoidance

Lidar sensing technology can detect objects within 20 meters around, 270° scanning angle, wide detection range, high accuracy

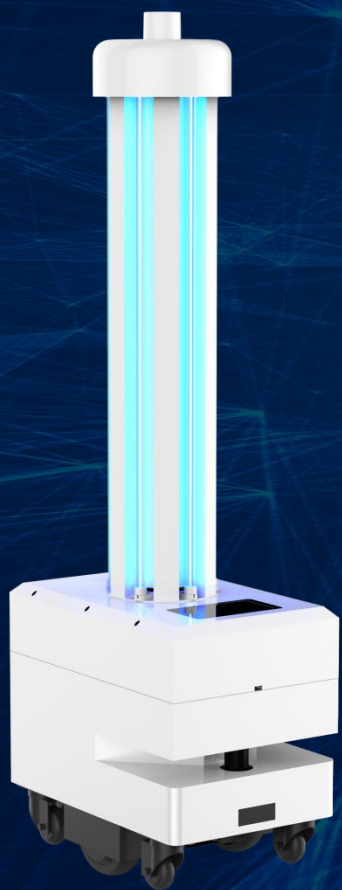
Accurately detect obstacles and automatically bypass, which can realize pedestrian avoidance under unmanned driving



# 3.1 Product structure



## 3.2 Product parameter



Product name	X1-A	X1-B	X1-C	Y1
Internal number	HBOT11U	HBOT12U	HBOT13U	WBOT11U
Lamp power (single tube)	30W	36W	30W	30W
Number of tubes	6	8	6	6
Tube length	90cm	120cm	90cm	90cm
Battery Type	20800mAh/37V	20800mAh/37V	20800mAh/37V	20800mAh/37V
Battery life	2.5~3h	1.5~2h	2.5~3h	2.5~3h
Charging time	3~4h	3~4h	3~4h	3~4h
UV irradiation distance	6m	6m	6m	6m
Infrared human body induction	Optional	Optional	Optional	Optional
Disinfection method	Single disinfection, cycle disinfection	Single disinfection, cycle disinfection	Single disinfection, cycle disinfection	Single disinfection, cycle disinfection
Display size	7 inches	7 inches	7 inches	7 inches
Language mode	Chinese、 English	Chinese、 English	Chinese、 English	Chinese、 English
Laser Ranging	20m	20m	20m	20m
product weight	50KG	49KG	49KG	50KG
Product Size (L×W×H mm)	540×360×1550	540×360×1850	540×360×1500	450×450×1462

## 3.3 Applicable scene

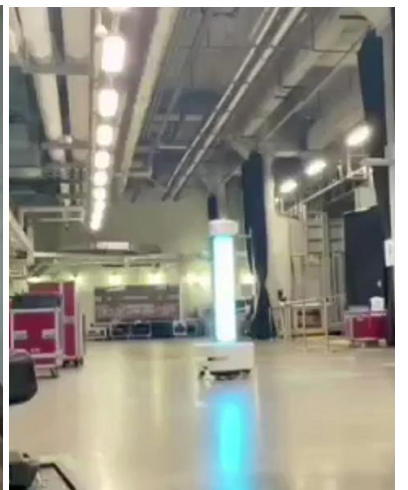
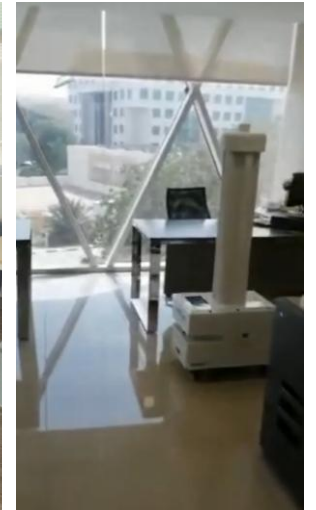


### Suitable for disinfection of large and medium-sized indoor public places

- ▶ Subway stations, high-speed rail stations, airports, customs ports
- ▶ Hospitals, Banks, Government Halls, Restaurants, Shopping Malls
- ▶ Logistics, Warehousing, Factory, Workshop
- ▶ School, Library
- ▶ Convention and Exhibition Center, Auto 4S Shop
- ▶ Nursing homes, welfare homes

Autonomous mobile multi-point disinfection, custom disinfection target point and disinfection time, automatic execution of disinfection tasks. You can choose single disinfection or cyclic disinfection, and customize the weekly plan disinfection task.

# 3.4 Case Show



# Thank you for watching

ATEAGO TECH

<http://www.ateago.com/>