LORBOT

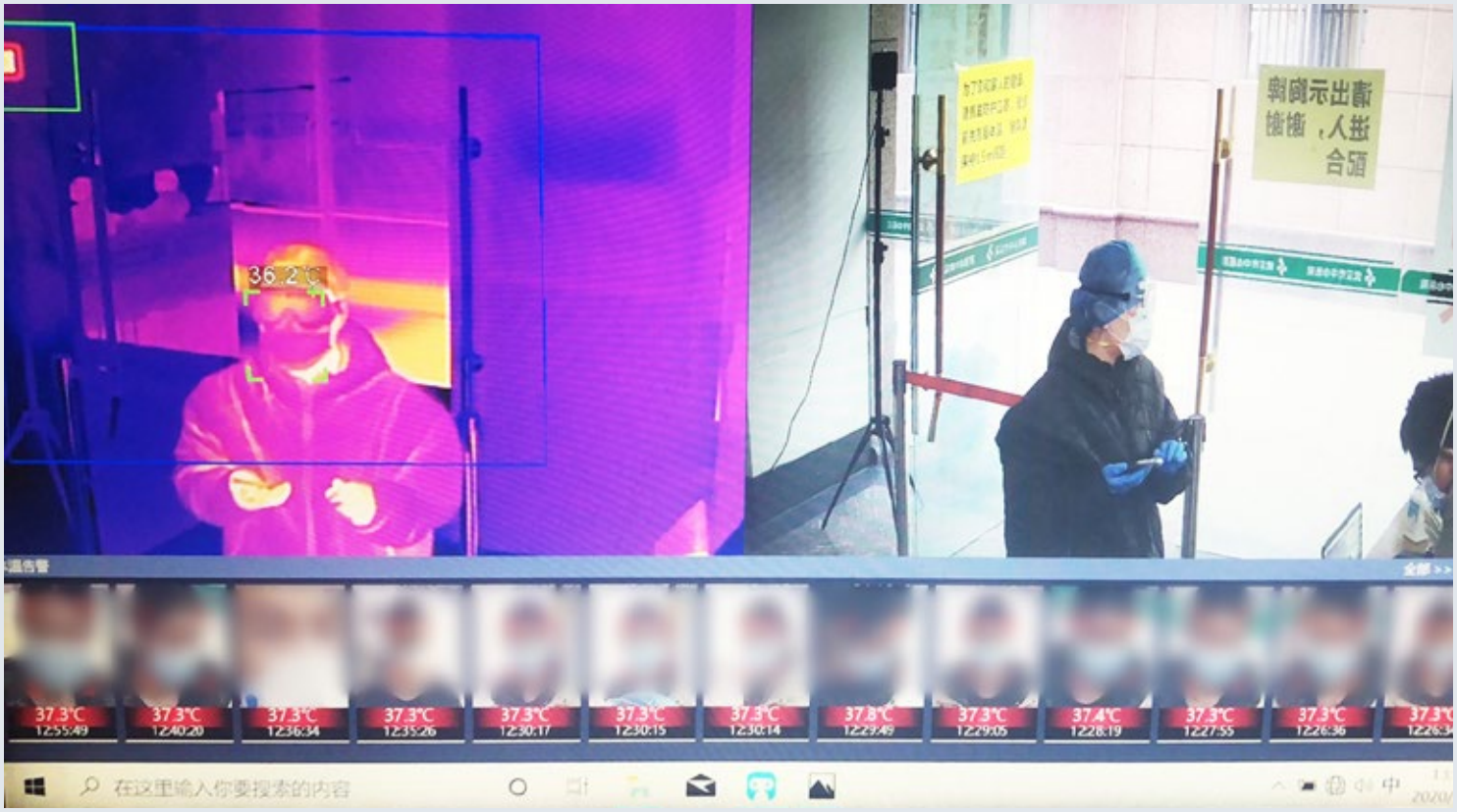
AIMBOT

Let's fight against Covid-19 together

- Mass Temperature Screening
- Mask Detection and Reminder
- Large Area Disinfection
- Customisable Broadcasting Messages

The Aimbot is an indoor multi-roles robot that is perfect for public epidemic control when there's a large flow of people.

Non-contact, Wide-range Temperature Measurement



- Infrared temperature measurement of ~ 15 people
- Up to a distance of 3.5m
- Non-contact temperature measurement (±0.3°C)

Real-time Mask Detection & Reminder

To ensure that everyone is wearing their masks properly within the premise

Automatic voice reminder or voice intercom from Control Center

Automatic Disinfection Of Large Areas

Equipped with disinfection module for automatic disinfection

24 hours disinfection service

Each aimbot can hold about 16L of disinfectant liquid

Customisable Broadcasting System

Able to broadcast messages for epidemic prevention reminder while patrolling indoors

Customisable voice broadcasting

Data can be collected for analysis

Data collected can be used for analysis and decision making

Product Specification

Hardware Specification

Configuration list (The Body Part)

Appearance	
Mode of motion	Wheel Type
Color	White
Size	"Holder retracted down：1257(H)*537(W)*537(D)(mm) Holder stretched up：2157(H)*537(W)*537(D)(mm)
Weight	56.8KG
Material	Aluminium Alloy, PA+ABS Surface
Working Temperature Range	0°c ~ 40°c

Chip & Storage	
Android System	
Frequency	4 Cores Cortex-A17, Frequency 1.8GHz
RAM	4GB LP-DDR3
ROM	16GB
OP	Android 5.1
ROS (Robotic Operating System)	Intel I5 7200U
Frequency	Dual-Core ,Frequency 2.2GHz
RAM	8GB
ROM	64GB
OP	Ubuntu + ROS

Network	
Wifi	2.4G/5G Band

Power Supply

Battery Type & Capacity	Lithium-Iron Battery, 28Ah, 25.6V
Power Adapter	Input：90V-260V,50/60Hz Output：DC 28.8V/3.7A
Recharge Time	8 hours
Run Time	8 hours

Acoustic

Loudspeaker	2 pcs
Microphone	1 piece

Display

Display Screen+TP	11.6 inches (16:9), Resolution Ratio: 1920*1080

Pan-tilt

Infrared Camera	pixel : 400*300, temperature checking range: 30°c ~ 45°c Image Resolution : 1280×960, 1024×768, 640×480, 256×192, (default 1280×960) error rate : ≤±0.3°C (with black body), ±0.5°C (without black body) (the camera can check 15 people with distance of 3 meters at maximum)
Visible Light Camera	Image Resolution: 1920×1080, 1280×720, 704× 576, (default 1920×1080) Image frame rate:1fps~25fps settable, (default 25fps)

Sensors

Navigation Obstacle-Avoidance Related	Navigation Obstacle-Avoidance Related：LiDar、RGBD Camera、Infrared Ultrasonic、9-axis Gyroscope、Geomagnetic Sensor、Inductive Sensor；
Environment Detection Related	Temperature&Humidity Sensor、PM2.5 Sensor；

Sterilizing Device

Sprinkling Can	2 pcs
Capacity	6L

* suggest using 3% concentration of hydrogen peroxide, or 5% concentration of 84 disinfectant

Others

Interface	1 Magnetic DC Power Port + 2 HDMI Ports + 2 USB Ports
Way of Movement	2 Driving Wheels + 2 Omni-directional Wheels
Way of Control	PC Client, Mobile APP, Timed Task, Touch Screen
Accessary	1 piece of power adapter , 1 peice of user manual
Typical Speed of Robot	0.5m/s
Maximum Height of Available Barrier When Moving with Speed	10mm
Maximum Width of Available Barrier	30mm
Maximum Angle of Available Barrier	6.5°

(The Charge Pile Part)

Appearance	
Color	White
Size	334(L)*272(W)*217(D)（mm)
Weight	5KG
Material	Metal and Plastic Materials
Input	100V-240V,50/60Hz
Output	DC 28.8V, 3.7A
Sensors	Infrared Sensor, Hall Sensor
Installation	Install on ground against the wall

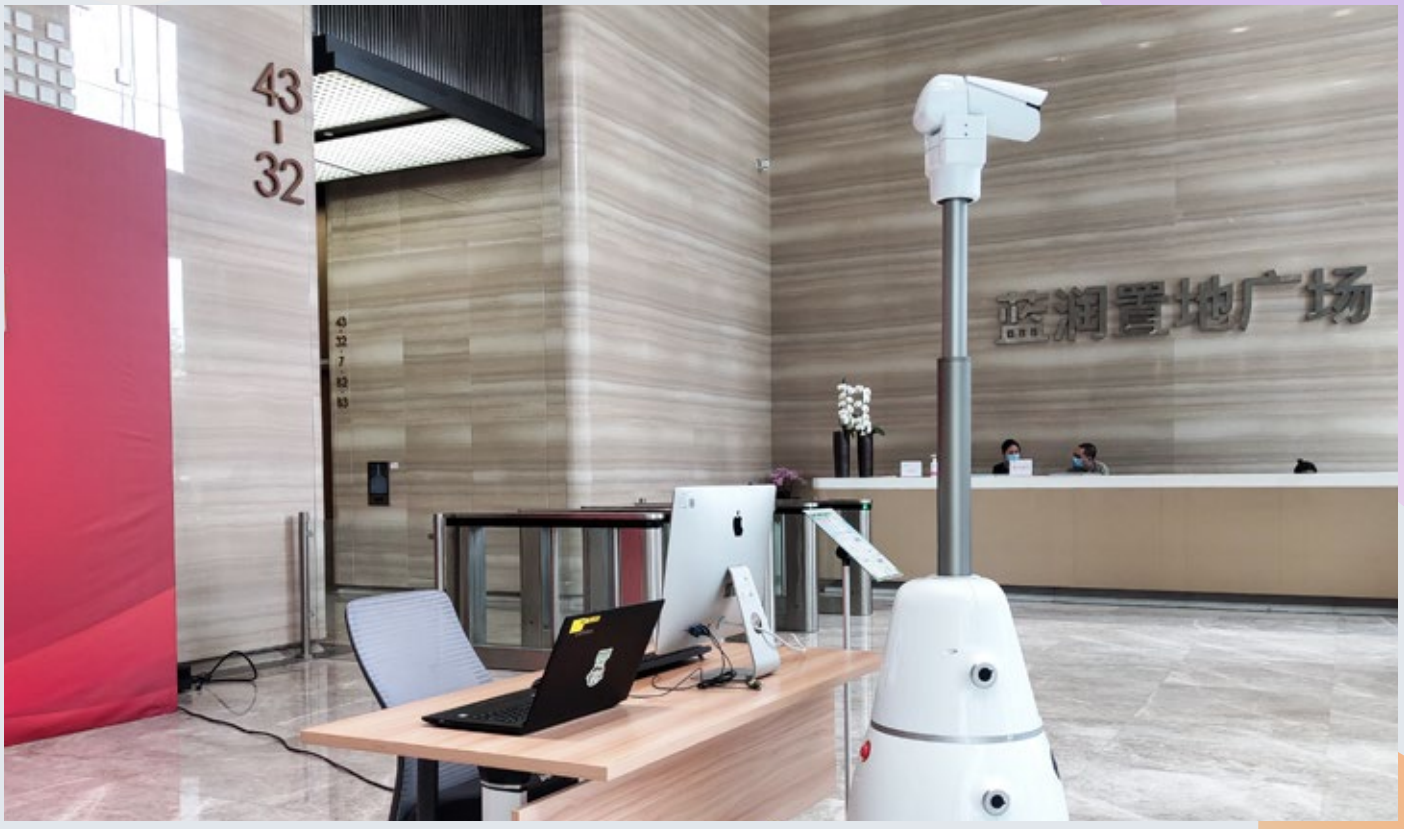
Software Design

Name of Function	Description
U-SLAM	UBTech Simultaneous Localization and Mapping, with the Lidar embedded, the robot can be controlled by an APP to scan the environment of the work place, and then generate a map which is used for localization and navigation autonomously.
Autonomous Obstacle Avoidance	With the fusion of multi-sensors as Lidar, Ultrasonic, Infrared, RGB-D Camera, the robot have the intelligence to recognize the obstacle in its way and make a detour.
Real-time Monitoring	With a HD-Camera, the robot can transport the video image back to the PC screen of operator.
Autonomous Recharging	The robot can move back to the charging pile to recharge when the battery with low power or the mission is finished.
Alarm Classifying	Users can define the class of the alarms as they will. The alarms can be transport to the stuff by many ways as PC alarm, SMS, Mobile Phone Call.
Senior Machine Vision	By Senior Machine Vision algorithm, the robot can recognize the person without wearing a face mask and generate an alarm.
The Body Temperature Check by Thermal Infrared Camera	With a thermal infrared camera and related AI algorithm, the robot can check the boty temperature of the person walked by, and if the temperature is higher than 37.3°c, robot can generate an alarm.
Autonomous Sterilizing	Aimbot robot is able to sprinkle the disinfectant when it is moving.
Timed Task Function	Users can set timed tasks and loop tasks on the PC client. Robot will start the mission on time.

Applications

Hospitals

Applications



Corporate Offices

LORBOT

With the recent outbreak of Covid-19, we strive to provide an integrated smart-tech solution via a suite of enterprise robots to assist our frontline staff, healthcare workers & volunteers in combating the novel virus.

Our solutions are brought into Singapore exclusively by LDR Pte Ltd to

A Enable frontline staff to carry out their duties whilst minimising physical contact with others

B Provide management full visibility of all robots & devices deployed in the premise

C Monitor the health status & movement of staff who were deployed & Covid-19 patients housed across various facilities

D Allow those who're quarantined/isolated to reconnect with their loved ones or receive professional help from doctors digitally

If interested or have further enquiries,
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