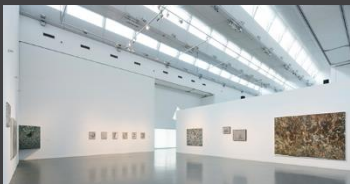
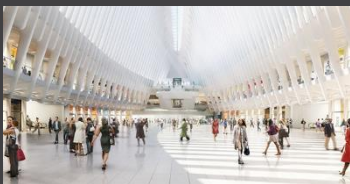




Innovator In Spectroscopy Equipment

SRobot2119



SOCIAL ROBOT MODEL SRobot2119

www.cfp.co.ir



CATALOG



ROBOT SYSTEM



FREE DOWNLOAD

SOCIAL ROBOT

MODEL SRobot2119

Features

- Flexible programming with unlimited applications
- Simultaneous localization and mapping routine
- Path planning routine for user defined target
- Avoid regions using user-defined virtual wall
- Autonomous and user controlled navigation
- Remote control using CFP-SR Software
- Speech interaction based on cloud data
- Autonomous return to charge station
- Stable body with wheeled base
- Virtual track and virtual wall
- Multiple user defined targets
- Facial recognition and tracking using deep learning
- Ultrasonic sensor for real-time obstacle avoidance
- Easily programmable for routine tasks
- Two 3D camera in different height
- Cliff sensors to avoid collapse
- SLAM with high sampling rate
- Intelligent assistance
- Object recognition
- Long battery life
- Telepresence



Description

SR2119 is a social robot specially designed for application in crowded area which need high level of human-robot interactions. The Robot is fully modular and the operation of base and body are fully separated. The robot navigation and mapping systems are embedded in the base part which makes the base applicable without body. The base is of the wheeled version which brings high level of stability for the robot. It includes three types of sensors for navigation, namely LiDAR sensor (1 sensor), Ultrasonic sensor (3 sensors) and cliff sensors (3 sensors). LiDAR is responsible to extract the space mapping and is the key hardware in navigation system. Ultrasonic sensors avoid the obstacles in maximum 40cm range in a real-time manner. Cliff sensors are used to prevent the robot from falling down in edges with more than 5cm depth. SR2119 is capable of moving at 0.7 m/s speed which is suitable for many social robotic applications. The body brings interactions for the robot and is responsible for various artificial intelligence properties of SR2119. Various sensors on robot body bring needed information for robot intelligent actions. These sensors include 3D camera, microphones and touch panels. Using these sensors and based on the application, intelligent actions could be activated on SR2119. As some examples of these actions we can name speech interactions, facial recognition and face detection, facial action recognition, etc. Elegant and perfect user-friendly design of SR2119 makes it a sociable robot. The robot is equipped with a high capacity battery and is capable of automatic return to charger dock in the case of low battery.

Specifications

Base Physical Properties
Dimensions
270mm x 500mm (Height x Diameter)
Weight
40kg
Maximum body weight
35kg
LiDAR sensor
Maximum scan radius
15meter
Ultrasonic sensor
Quantity
3
Maximum sensing range
40cm
Cliff sensor
Quantity
3
Minimum sensing range
5cm
Depth camera
Maximum sensing range
1.3meter
Viewing angel

45°x35° (WxH)
Mapping
Map resolution
5cm
Maximum mapping size
150meter x 150meter (22500 square meter)
Moving
Maximum speed
0.7meter/s
Battery
Discharge time (No load)
> 12h
Standby power consumption
< 25W
Battery life
60% drop after 300 times full charging
Charger dock
Input
220V~240V
Output
25.2V – 10A Max
Auto recharge
Charging time
5.5h
Artificial Intelligence (Optional)
Voice interactions
Face detection
Face identification
Facial action recognition
Age and gender estimation
Object tracking and recognition
Display
Touch, IPS, Full color
10.1", 1280x800 pixels,
Infrared camera properties (HD camera)
Active pixels:
640x480
Sensor aspect ratio
4:3
Vertical field of view
55°±2°
Horizontal field of view
71.5°±2°
Diagonal field of view
88°±3°
Inclination
±1°Yaw/Pitch Tilt
Color camera properties (HD camera)
Active pixels:
1920x1080
Sensor aspect ratio
16:9
Vertical field of view

41.5 ⁰ ±2°
Horizontal field of view
68 ⁰ ±2°
Diagonal field of view
75.5 ⁰ ±3°
Inclination
±1°Yaw/Pitch Tilt
Infrared projector properties (HD camera)
Projector
Coded light
Laser wavelength
860nm nominal
Vertical field of view
60 ⁰ ±4°
Horizontal field of view
72.5 ⁰ ±2°
Inclination
5°±2°Yaw Tilt (Toward IR camera)
Microphone
Type
Omnidirectional
Sensitivity
-44db (@1kHz, 1Pa, 0db = 1V/Pa)
Operating frequency
20Hz - 20kHz
Signal to Noise ratio (SNR)
60dbA(@1kHz, 1Pa, A weighted)
Material
Aluminium
Weight
1g (maximum)
Amplifier
Max4466 with adjusted gain 25x to 125x
Speaker
Output power
6W PNPO
Frequency range
100Hz - 20kHz
Operating range
10m

Application

- Intelligent transportation at Hypermarkets and malls
- Mapping and localization for path planning
- Customer management at companies
- Intelligent guidance at public areas
- Intelligent nursing at hospitals
- Information Provider at banks
- Entertainment for Teenagers
- Information kiosk at airport



Electrical and Mechanical

Power required

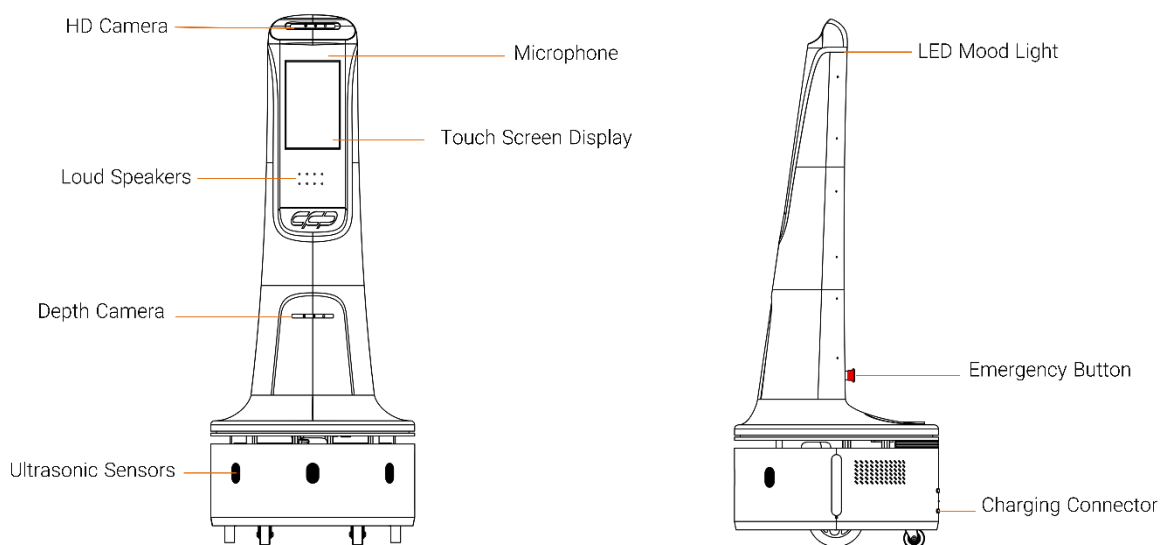
AC - 220V - 50Hz

Physical

Dimensions	500mm x 500mm x 1300mm (LxWxH)
Weight	52kg
Storage temperature	-10°C to 40°C
Humidity	30% - 70%

Software

CFP-SR-Software





Ordering info

Standard package includes

Part #	Image	Description
SR2119 Main		Includes the main body of Robot
ACCE2119001		Charging dock
ACCE2119002		Power Cable
ACCE2119003		CD User guide (1 Pack)

Optional accessories and services

Part #	Image	Description
ACCE2119004		installation
ACCE2119005		Training



Innovator in Spectroscopy Equipment



Unit 10, No 64, Vahedi
(7) St, After Punak Sq,
Ashrafi Esfahani Expy,
Tehran, Iran



+98 (21) 46045383

w w w . c f p . c o . i r