

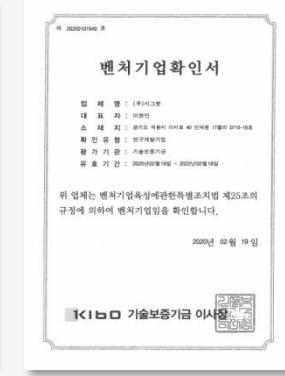
Near-Field Solid State LiDAR

COMPANY PROFILE

Specialized in 2D/3D Sensor

- Patent 3, Pending 2
- Development of Short Range 2D/3D LiDAR Sensor
- Development of H/W , S/W , Optical Systems
- Development of Robot System Using LiDAR
- Development of Image Processing Algorithm
- Development of Structural Light Distance Measuring Algorithm Using DOE

Certification / Patent



Awards

- **2020 RobotWorld Awards**
Best product of the year
- **2021 World IT Show**
Innovation Awards



PROBLEM

Problems with LiDAR

SIZE

A scanning LiDAR has a large volume because it has a moving part inside. Invalid to apply to umanned or small robots.

COST

High priced LiDARs are difficult to apply not only industries but also to educational or toy robots sold to B2C.

DURABILITY

Scanning type of LiDAR with moving parts, durability problems such as vibration and heat generation caused by motors frequently occur.



Design constraints due to large size of scanning type LiDAR



SOLUTION(1 / 2)

CygLiDAR 2D/3D Dual SolidState ToF LiDAR



37 x 37 x 24(mm) SOLID STATE LiDAR

SIZE

Weighing only 28g and featuring a compact design **37.4x37.4x24.5(mm)**. CygLiDAR is optimized for usage across a variety of applications, including robotics, security, smart cities and more.

COST

CygLiDAR is made at a lower cost than a high priced scanning type LiDAR.

DURABILITY

It uses a solid state method without driving parts to improve durability problems such as heat generation and vibration.

DESIGN

CygLiDAR, which recognizes a wide range through the SOLID STATE method, can be applied inside the product.

SOLUTION(2/2)

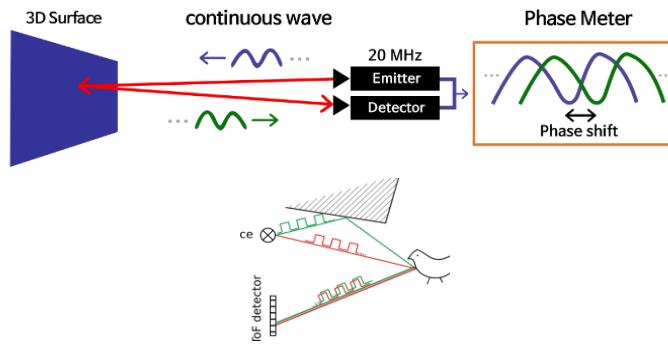
CygLiDAR 2D/3D Dual SolidState ToF LiDAR

	VELODYNE 	SICK 	HOKUYO 	SLAMTEC 	CYGBOT 
MODEL	PUCK	TIM571	UST-10LX	RPLIDAR A1	CYGLIDAR D1
SIZE	●	●	●●	●●	●●●
WEIGHT	●	●●	●●	●●	●●●
COST	●	●	●●	●●●	●●●
DURABILITY	●●	●●	●●	●	●●●
RANGE	●●●	●●	●●	●●	●●
FOV	●●●	●●	●●	●●●	●

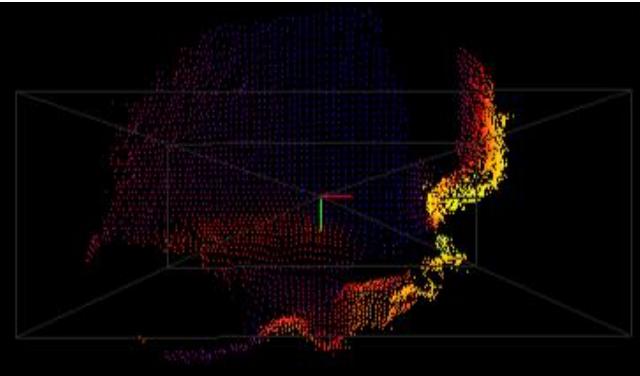
● GOOD ●● BETTER ●●● BEST

TECHNOLOGY

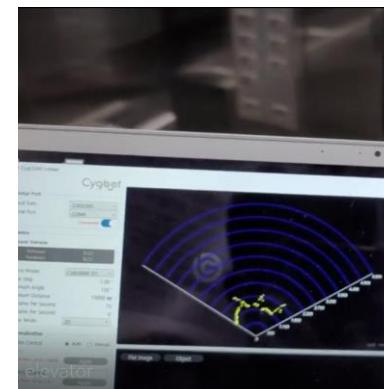
Problem-solving technology in Multipath interference (MPI), ambient light environment of LiDAR with Light



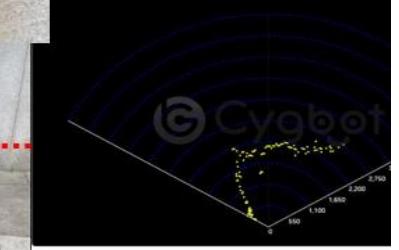
**Accurate Point Cloud Data with Distortion Correction,
Mass Production Calibration Technology**



**ToF Depth measuring technology
Metal reflection(elevator) ghost phenomenon reduction and outdoor recognition technology.**

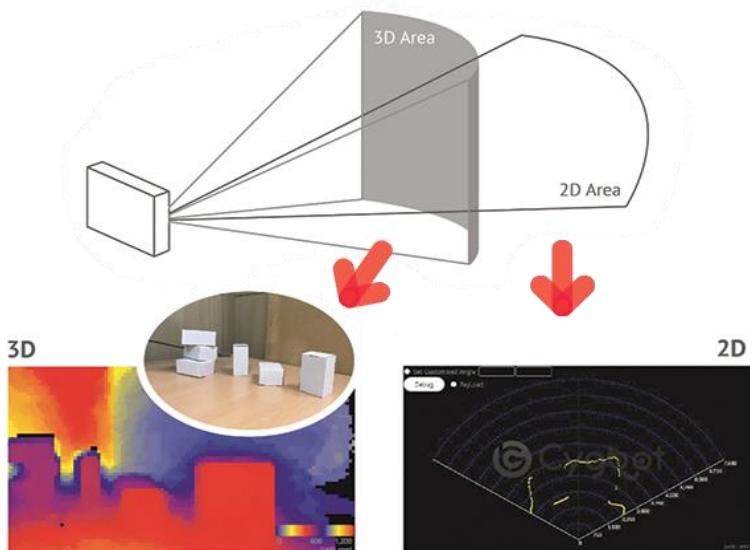


Over 100K Lux outdoor

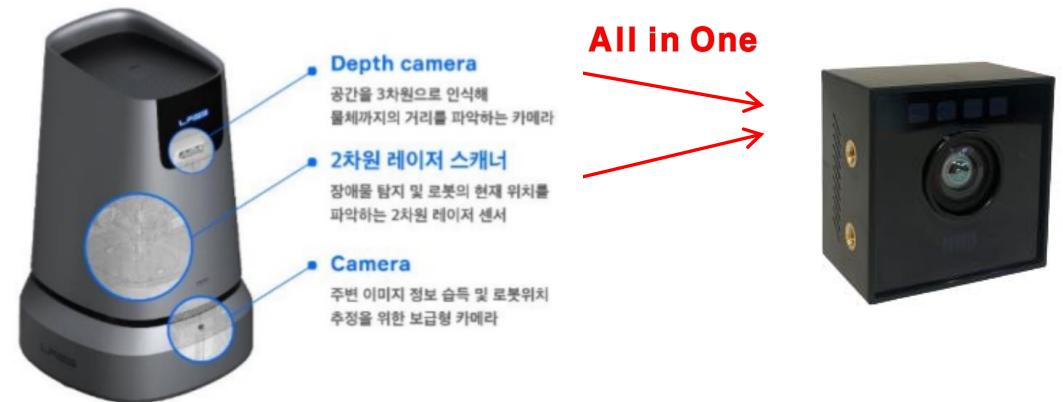


TECHNOLOGY

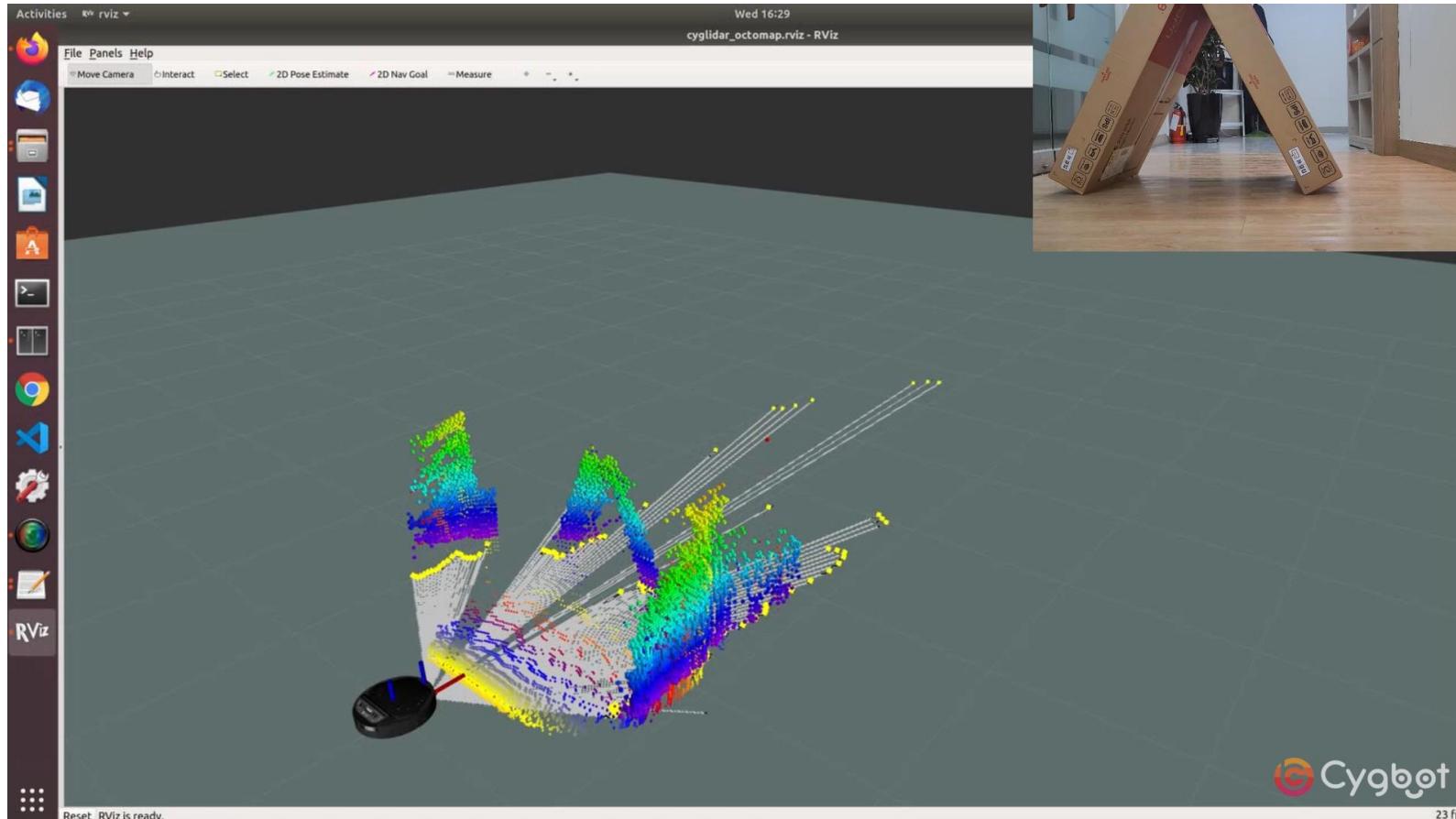
Simultaneous measurement of 2D/3D enables simultaneous robot SLAM and obstacle avoidance
– Technical of lower power and small size



AROUND
Indoor autonomous service robot



TECHNOLOGY



<https://youtu.be/34n1tF5OtQU>

PRODUCT(1 / 3)

2D/3D LiDAR for Robots

Small Size LiDAR for robot vacuum and smart toys



- 2D/3D LiDAR for robot vacuum
- Mobile robots
- Cleaning robots
- Smart toy
- Gesture recognition

EDUCATION



ROBOT VACUUM



SMART TOY



GESTURE RECOGNIZE



PRODUCT(2/3)

3D CAMERA for Industry

Applications in various industries such as unmanned robot and subway screen door



- Safety Door Sensor
- Safety Hazard Detection
- Autonomous Robot



PRODUCT(3/3)

Near-Field 2D/3D LiDAR for Autonomous Vehicles

LiDAR for auto-parking system / detect hazard for autonomous vehicles



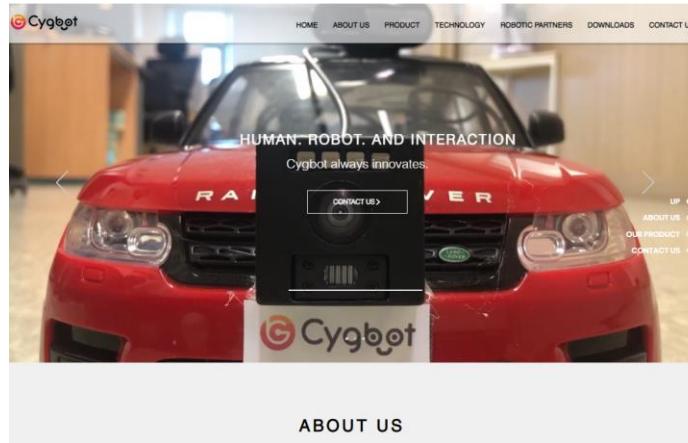
- Auto-Parking System
- Detecting hazard for vehicles
- Delivery Robot

AUTO PARKING

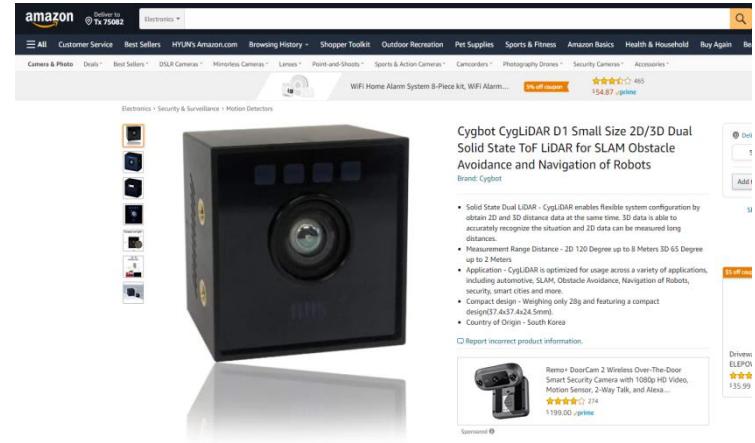


DELIVERY ROBOT

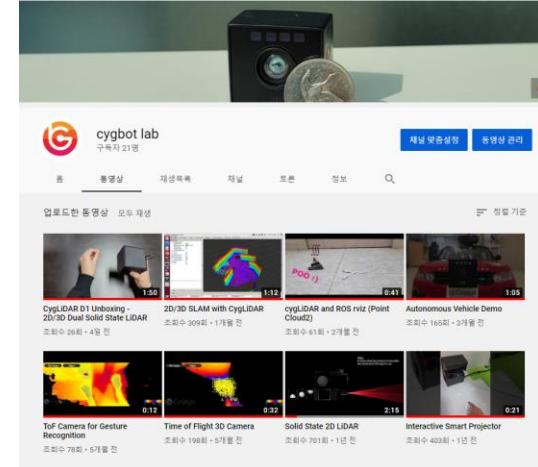




Web
<https://www.cygbot.com/>



Amazon
https://www.amazon.com/gp/product/B08X3ZJFY5?pf_rd_r=6DWGHWSK3D7GKV2YRPNV&pf_rd_p=5ae2c7f8-e0c6-4f35-9071-dc3240e894a8&pd_rd_r=40d539f1-9f13-4cb7-97b3-e856861e22ea&pd_rd_w=3iuim&pd_rd_wg=PAaSe&ref_=pd_gw_unk



Video
<https://www.youtube.com/channel/UC6YgyzqqdANY-vJcyTLBhsg/videos>



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