

**To be safe, to be able to
value life.**

COMPANY PROFILE

2021. 02. 12

**VITont AP Co.,
Ltd**



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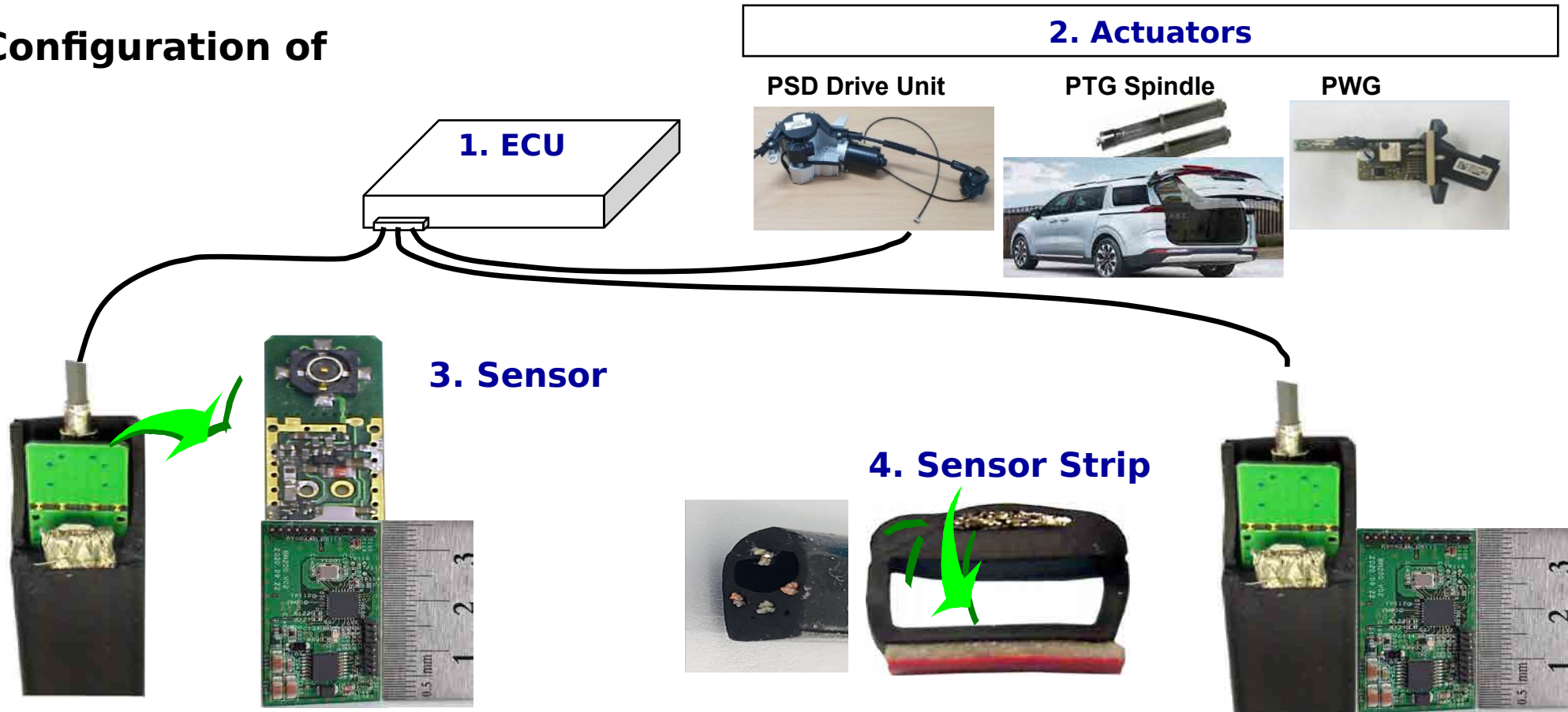
- 1. Configuration of TODS[Touchless Obstacle Detection System]**
- 2. Configuration of PSD, PTG and PWG with TODS**
- 3. TODS Automotive Applications**
- 4. History of TODS development**
- 5. Factory plan**
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Detection System]

1-1. What is TODS?

a safety system with the ability to detect parts of the body before they touch the sensor.

1-2. Configuration of TODS

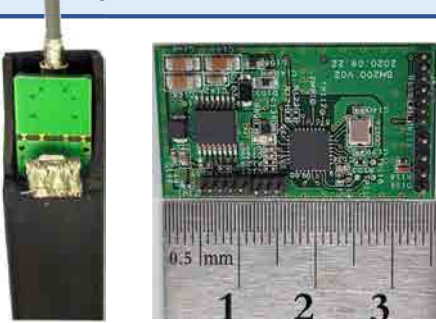


TODS


2-1. System Configuration

PSD[Power Sliding Door System] with TODS


Sensor Strip
+
Sensor ECU



PSD ECU




PSD Drive Unit




PTG[Power Tailgate System] with TODS


Sensor Strip
+
Sensor ECU



PTG ECU

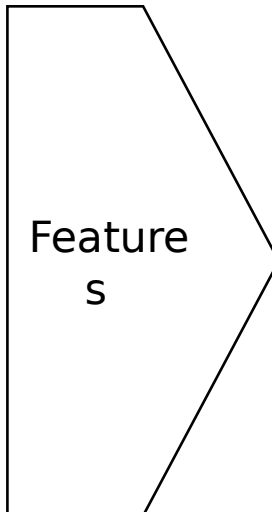


PTG Spindle



TODS

2-2. PSD System with TODS = Sensor Strip + Sensor ECU + Control ECU + Drive Unit

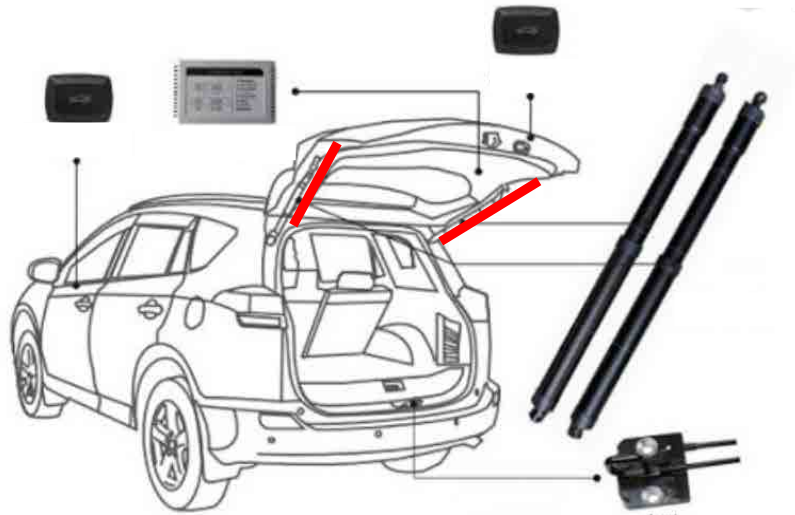


- Non-contact Human Sensing Sensor
 - Sense Distance / Size : 0~10mm, 4ø*50mm
 - Human Sensing Sensor Algorithm
- ECU of H/W Lay-out and Safety Diagnosis S/W of Optimal Structure
- Lightweight Drive Unit (Cooperative Development)



with TODS

2-3. PTG System with TODS = Sensor_ECU + Sensor_Strip + Control ECU + Spindle



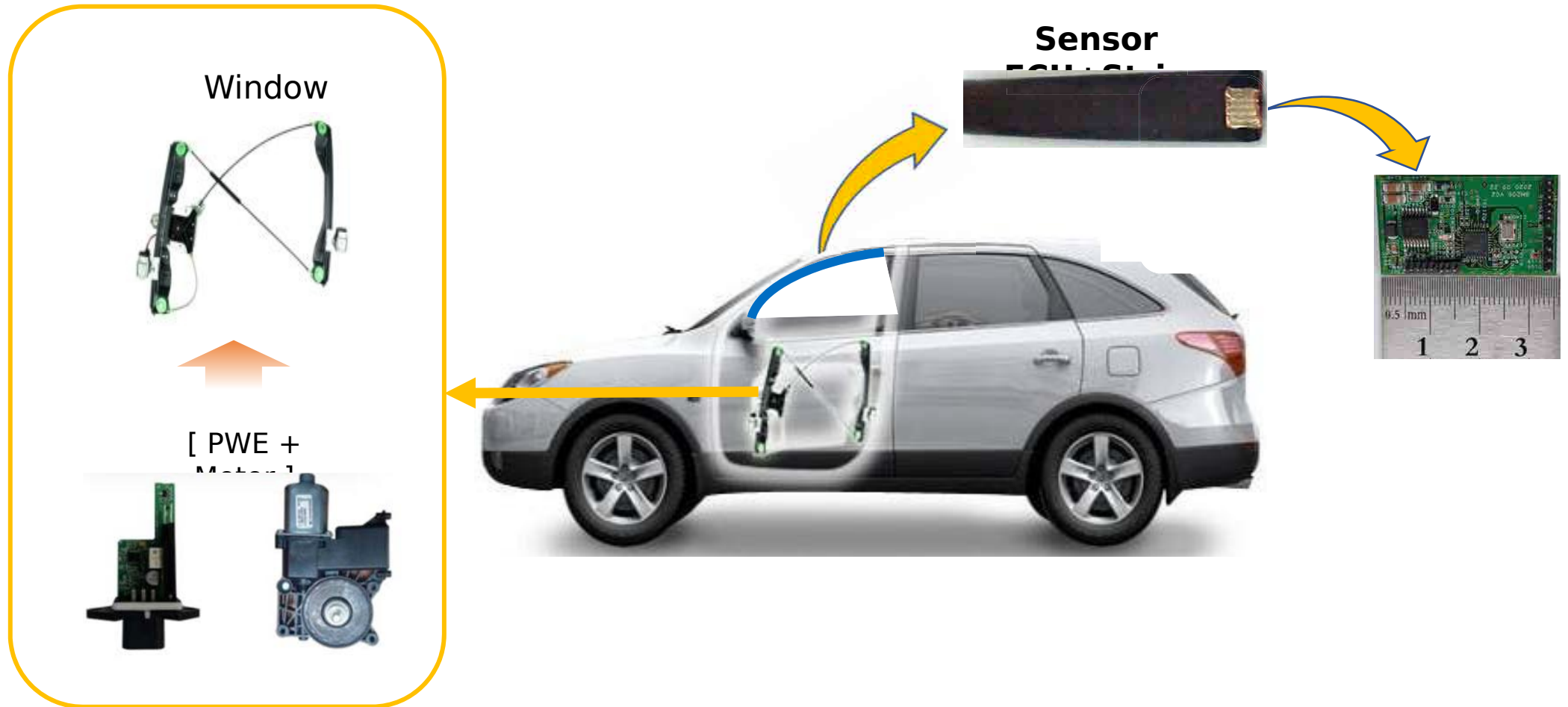
Features

- Non-contact Human Sensing Sensor
 - Sense Distance / Size : 0~10mm, 4ø*50mm
 - Human Sensing Sensor Algorithm
- ECU of H/W Lay-out and Safety Diagnosis S/W of Optimal Structure
- Spindle designed for strong construction and noise reduction (cooperative development)



2. Configuration of PWG system with TODS

2-4. PWG[Power Window Glass-run]System=Sensor_ECU+Sensor_Strip+ [PWE+Motor]+Regulator



3. TODS Automotive Applications

3-1. Applications

PTL



PTG



PSR



PSD



PWG



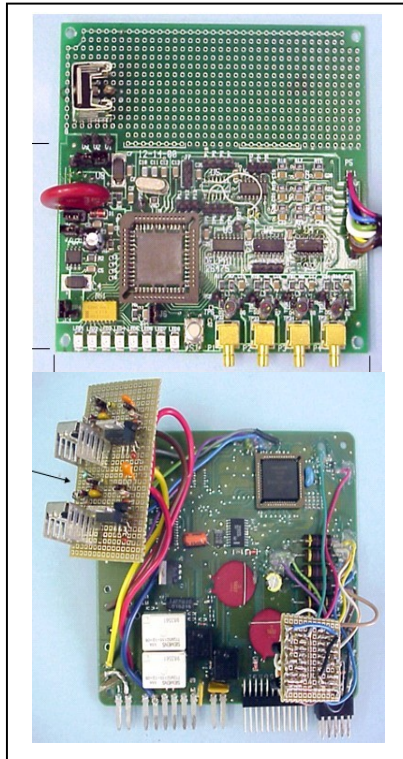
4. History of TODS development

4-1. TODS Technology Development Progress [Current 5th Generation Product]

World's First Development: Delphi USA + VITonet

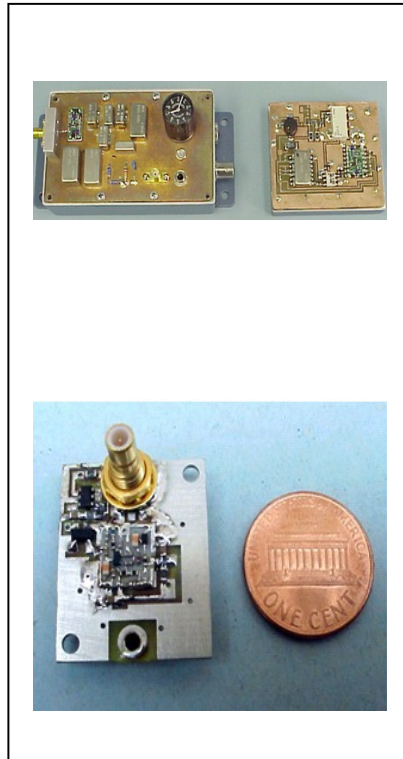
(2000~2008)

1st Gen.(2000)



- Single frequency,
- **Inside ISM band** * ISM band(Industrial Scientific Medical band)
- **Dead zone**

2nd Gen.(2002)



3rd Gen.(2005)



VITonet(2000~2008)

4th Gen.(2012)

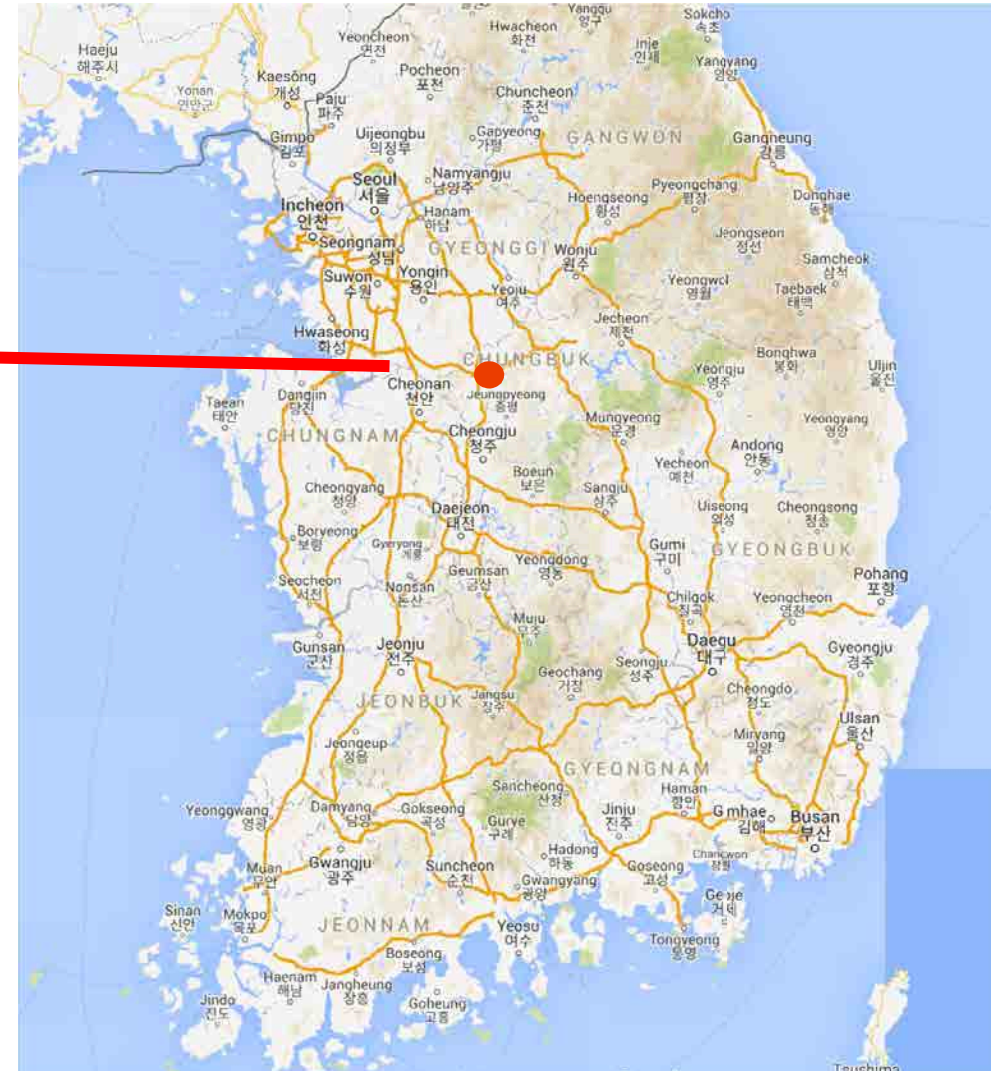
- Multi frequency
- No dead zone
- Outside ISM band**

VITonet AP(2017~present)

- 5th Gen.(Present)
- Single frequency
 - No dead zone
 - Inside ISM band**
 - Stable(temp, aging)**

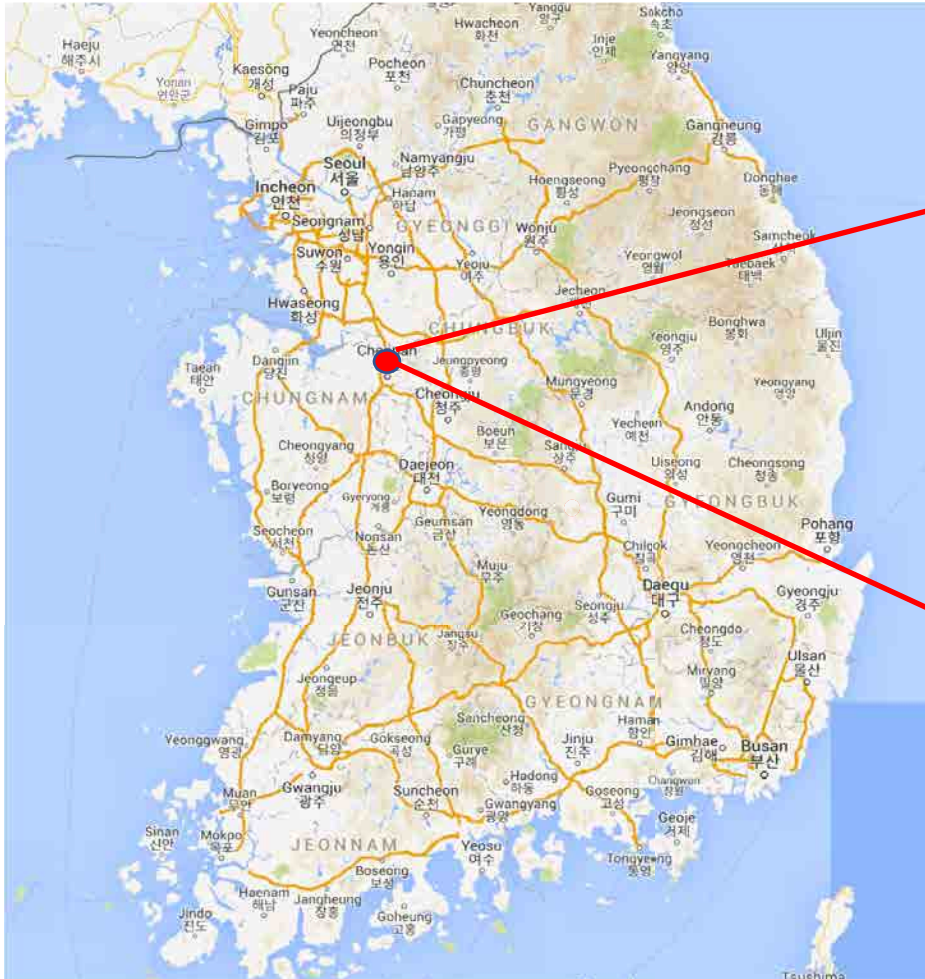
5. Factory plan

- Securing production plants (Cheonan Foreign Investment Corporation)



5. Factory plan

5-1. Production Plant Location



- Cheonan-si Baekseok-dongdan (Foreign Industrial Complex)
- TODS Sensor Production Scheduled
- 3,200 pyeong of land,
- 1,431 pyeong of floor space



- Special R&D Zone in Automotive Sector
- Korea Automotive Research Institute Chungnam Techno Park Car Center 210

5. Factory plan

- securing production plants (Cheonan Foreign Investment Corporation)
 - Factory Location: 50, 56 Gongdan 2-ro, Seobuk-gu, Cheonan-si, Chungcheongnam-do
Baekseok Foreign Industrial Complex
 - 3,200 pyeong of land,
 - 1,431 pyeong of floor space



6-1. Production line - Scheduled status of automation line construction

1st Production line for ECU



2nd Production line for Sensor ECU



3rd Production line for Sensor strip



4th Production line for Actuators



The background features a white top section with colorful, flowing, ethereal lines in shades of blue, green, and orange. Below this is a light blue gradient. In the bottom left corner, there is a dark blue area containing a world map composed of small white dots. The text "THANK YOU." is centered in the light blue area.

THANK YOU.