

# RS TECH



We are experts in customer solutions and global manufacturing !

MIIT "Service-oriented  
manufacturing demonstration  
enterprise"

Happiness Speed Innovation Learning Harmony

# Contents

01

RS Tech Overview

02

RS Tech Advantages

03

Project Experience

04

New Technologies



# PART 1

## RS Tech Overview



About our parent company  
Victory Precision



## General Information

Found in: 2003

Stock code : 002426

Industry occupied : Structure and Module of 3C, Intelligent Manufacture, New Energy

## Manpower and Capital

Manpower: 10000+

Revenue of 2018 : 18,5 Billion RMB, net capital 8.5 Billion

Market Value : 10+ Billion (RMB )

## Headquarters & Branches

Total Branch: 60+ (Wholly Owned Subsidiary/Holding Subsidiary)

RS TECH is wholly owned subsidiary of Victory precision

Overseas Location : USA, Finland, Poland, Japan, Taiwan, Hong Kong etc.

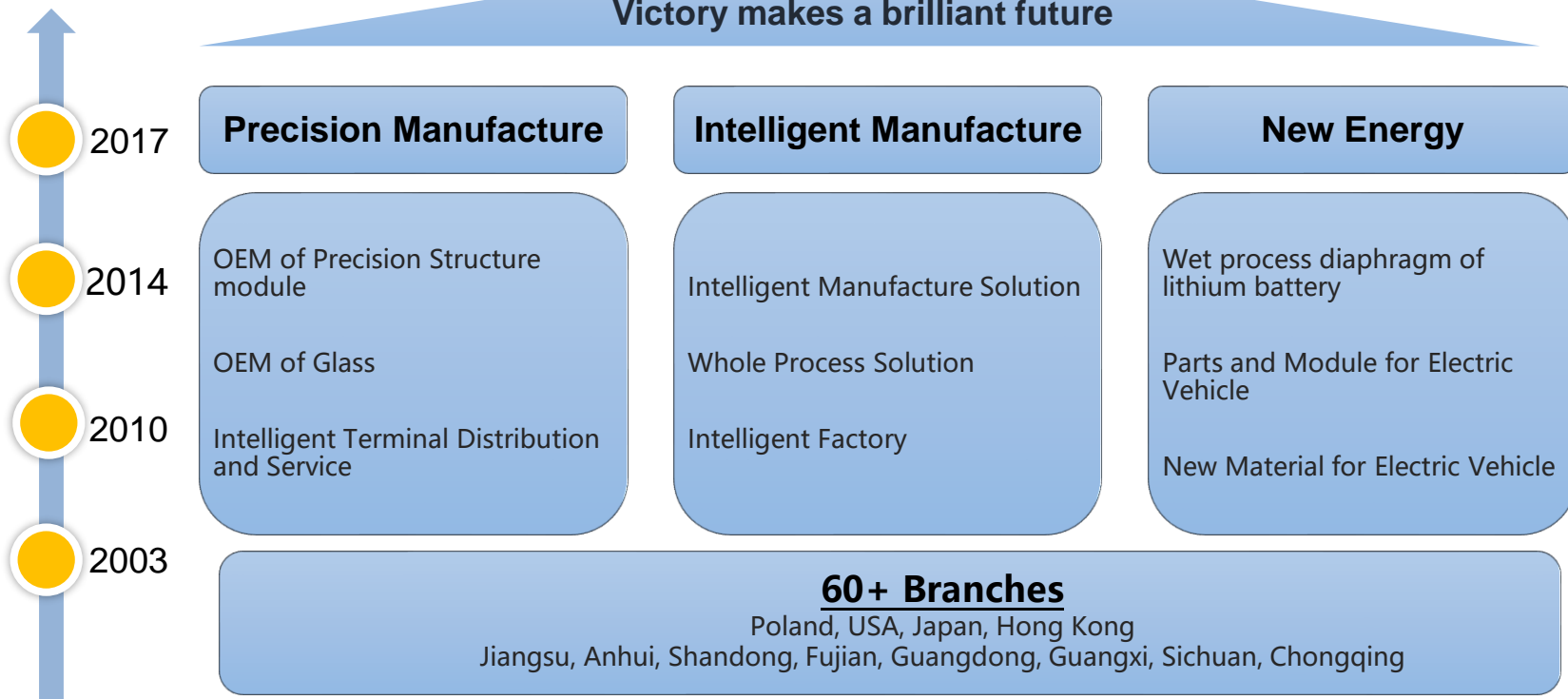


01

# RS TECH Overview

About Parent Company

Victory makes a brilliant future





**RS Tech Founder: Jiafu.Wu**

**Date Of Birth: 1977.8**

**Native Place: Sichaun Mianyang**

**Graduation: Xihua University,  
Cheung Kong Graduate School  
of Business**

## Entrepreneurial Experience

2001	Fico	QC Engineer
2003	SAMSUNG	Purchasing Supervisor
2006	SEW	Purchasing Manager
2007 till now	RS Tech	General Manager
2017 till now	Victory Precision	Group Director/ Vice President



## General Information

Found in: 2007

Industry occupied: 3C、Vehicle、Medical、Display、Semiconductor、Intelligent Factory、AR、VR、AI

## Manpower and Capital

Manpower: 2300+

R&D team: 540+

Revenue of 2018: 2 billion RMB

## Headquarters & Branches

Location of Headquarter : Suzhou City, Jiangsu Province

R&D Center : Suzhou, Shenzhen, San Francisco, Chengdu, Beijing, Finland



## Basic Information

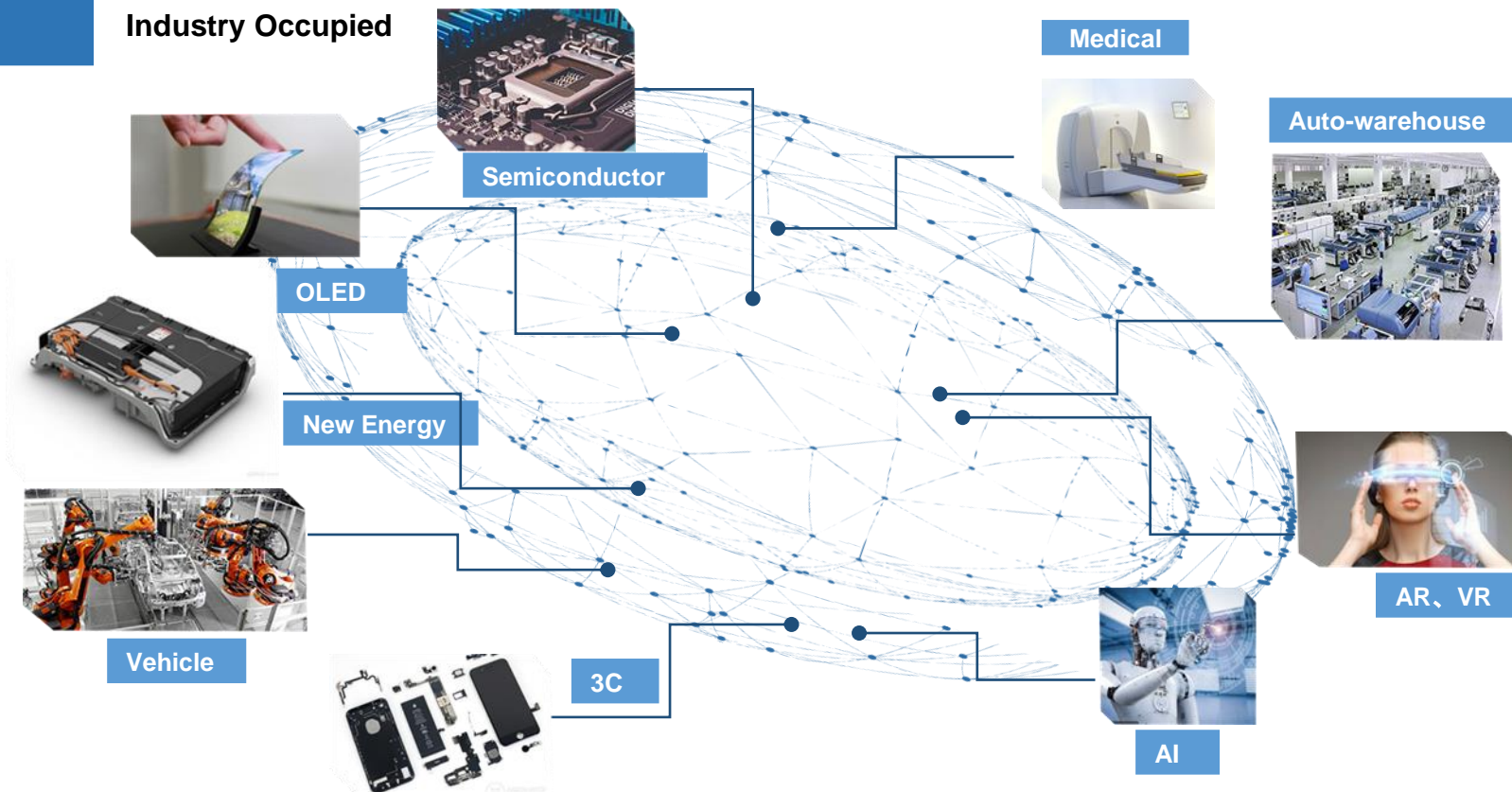




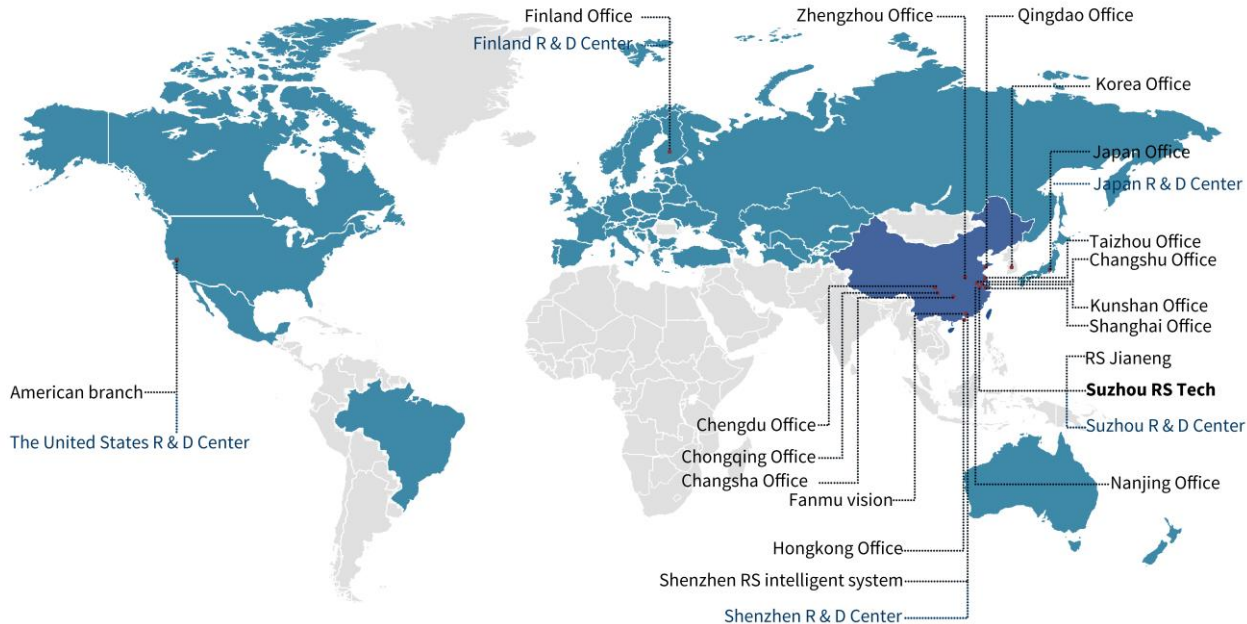
01

# RS TECH Overview

Industry Occupied



Happiness Speed Innovation Learning Harmony





SONY



oppo



vivo

BOE

FOXCONN<sup>®</sup>

SAMSUNG

Rockwell  
Automation

JABIL



SONOS



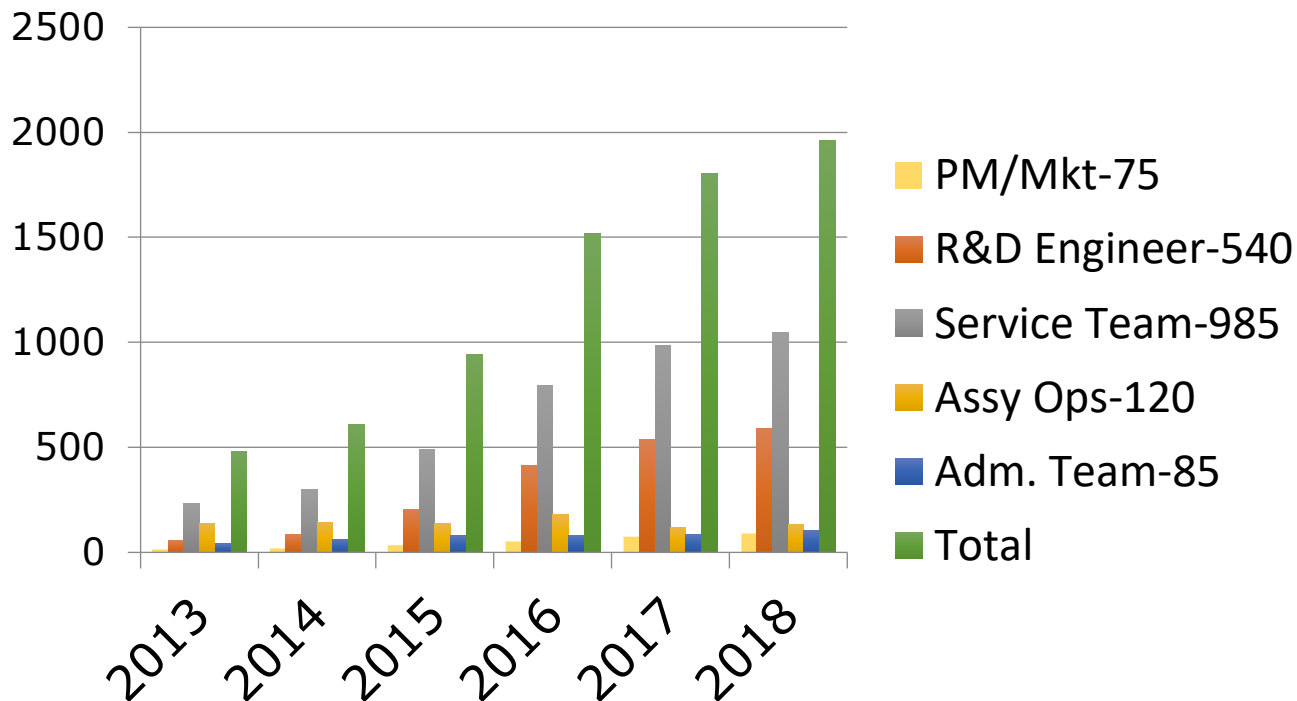
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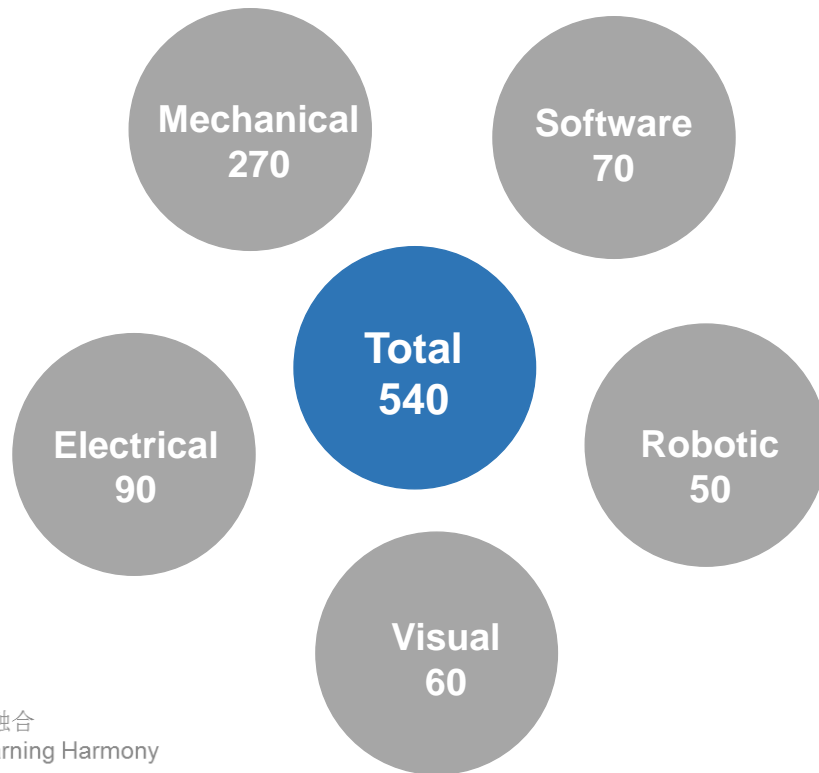
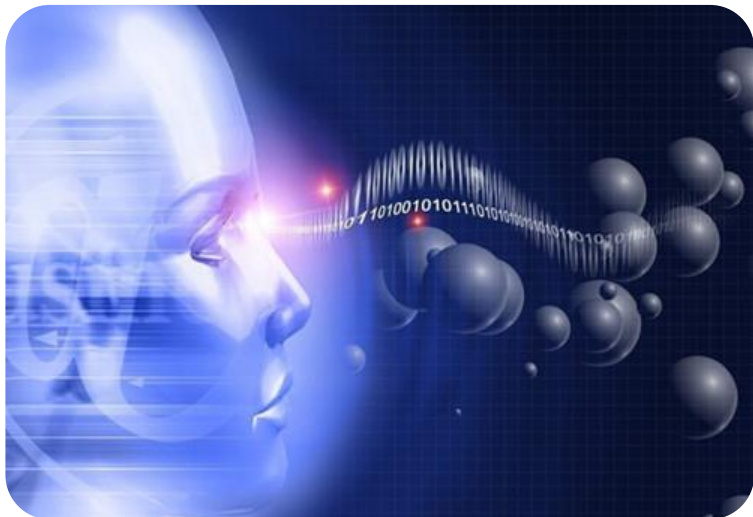
RS Tech Advantages





Increasing Manpower:

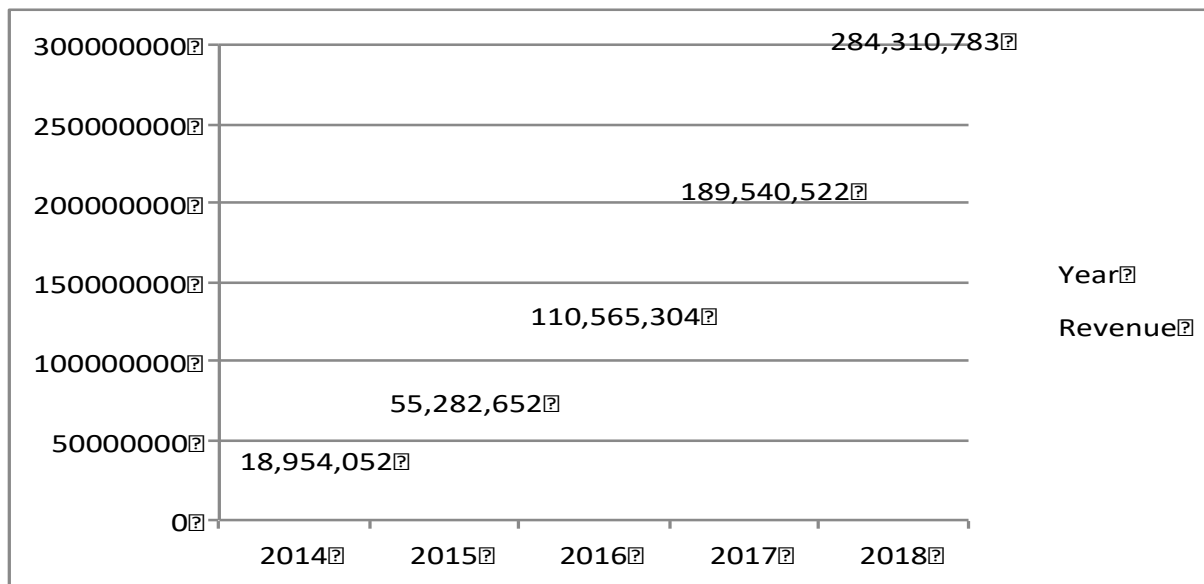




快乐 速度 创新 学习 融合  
Happiness Speed Innovation Learning Harmony



Increasing Revenue (unit:\$ )



2018 data is just for assessment



**Within 2hrs**



**Within 24hrs**

**48hrs covers whole China**





**KUKA****Rockwell****BOSCH****Inovance****CHINESE ACADEMY  
OF SCIENCES****UNIGROUP CLOUD  
ENGINE**



JOT



Advancel



**FUNA**  
富纳智能制造学院  
— FUNA IM ACADEMY —

智能制造学院  
工业机器人培训中心

FUNA intelligent manufacturing academy is the forerunner of skill education in the field of intelligent manufacturing. It was founded in 2017 and is headquartered in Suzhou, China. With the vision of "Better Education and Better Life", the College aims to create a shared platform for the cultivation of talents in the field of intelligent manufacturing, and to continuously deliver applied technical talents and integrated managers to intelligent manufacturing enterprises.



# 02

## RS TECH Advantages

Intelligent Manufacturing Academy



**Automation**



**AI**



**IoT**

**Masters' Lab  
R&D Center  
Research**

**Engineers  
Degree Education  
Application**

**Technicians  
Training Center  
Operation**

United research center  
Explore new technology  
Feasibility of product transfer

Connected with colleges  
Build employer-college co-base education  
Enhance technology application

Introduced dual vocational education  
in Germany  
Improve skills and efficiency

Economic  
Increase

Society  
Development

People  
Happiness

Happiness Speed Innovation Learning Harmony

# PART 3

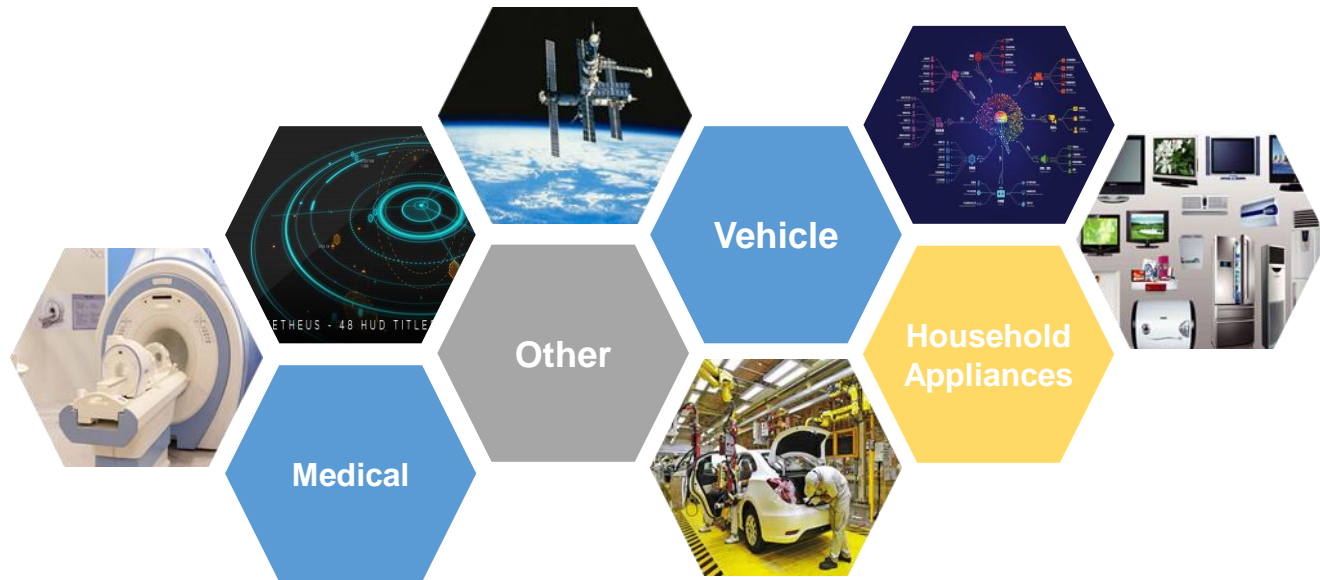
## Project Experience



# 03

## Project Experience

General

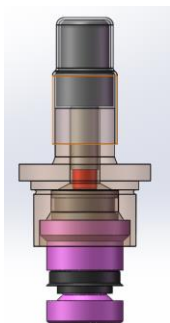


# 03

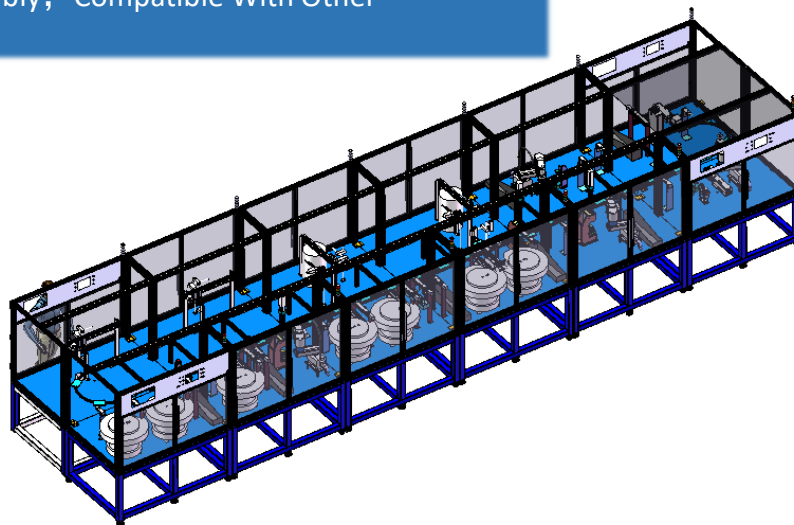
## Project Experience

### Normal Open/Normal Close Valve Assembly Line

- 1、300000pcs/yr Normal Open/ Normal Close
- 2、Production Speed $\leq 10$ s/pc ;
- 3、Reliable And Stable , High Quality Of Assembly, Compatible With Other Projects



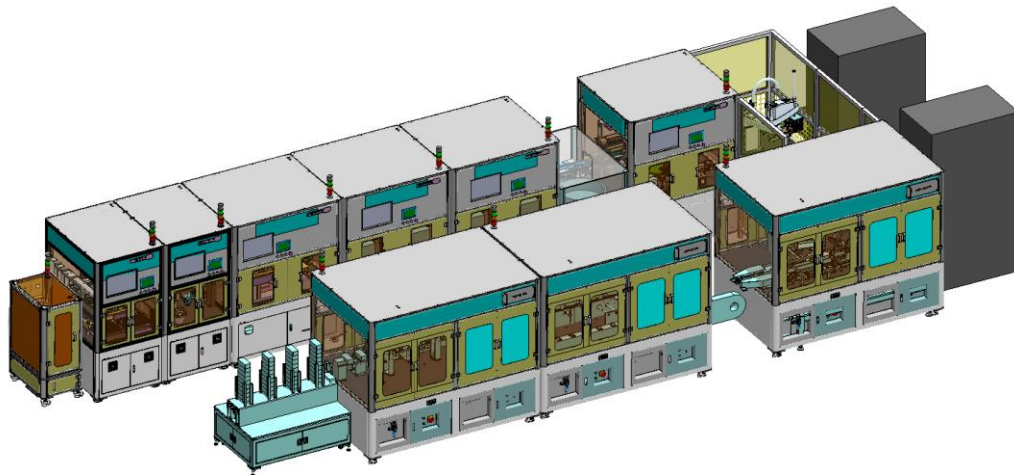
Normal Open/Normal Close Valve



# 03

## Project Experience

PLC

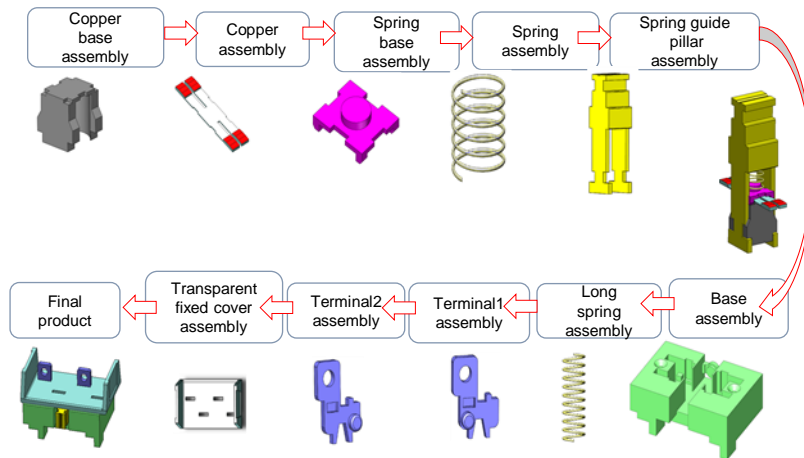


### Automatic Production Line For Assembly, Testing And Packaging Of IO Module Of PLC

- Save 32 manpower, complete 8 kinds of components, automatic production line of 22 processes
- CT=5S, Length=13m, Width=3.5
- Including assembly, buckling, appearance inspection, electrical measurement, coding, labeling, unboxing, bagging, packing and other processes







### Electrical Switch Assemble Line

- American standard electrical switch automatic assembly line, total 12 stations
- Quick moving by guiding conveyor, high precision positioning without CCD
- CT<5.8S, Applies to 4 types switch
- Integrates leakage monitor, force testing, TE testing



# 03

## Project Experience

SMT



### PCBA Assemble Line

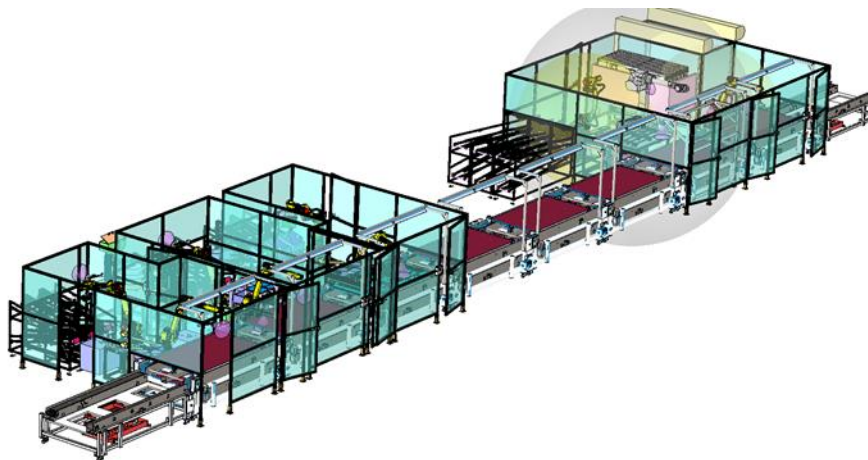
- Connects auto-plug-in, wave soldering, AOI, auto-testing, auto-spray painting in PCBA, realize online production, total 32 stations
- Applies to 3 types PCBA, size form 80\*80mm to 240\*300mm
- CT< 25S
- Carrier recycling by AGV
- Quick change over by one keyboard toggle



# 03

## Project Experience

Household Appliances



### TV Assembly Line

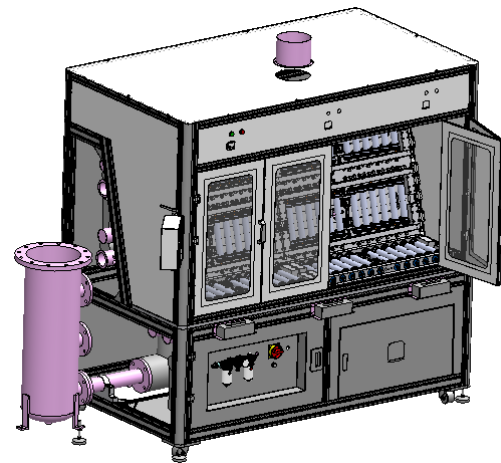
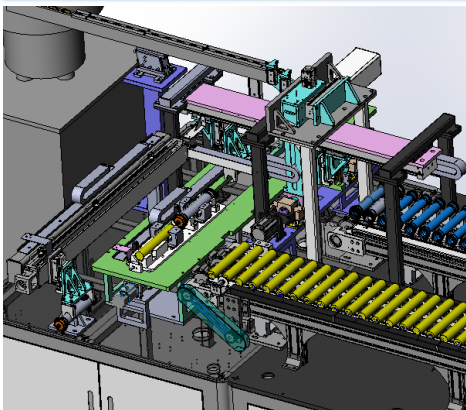
- Integrates robot, CCD, laser and force sensor
- Applies to 75" and 85" TV
- Upper and lower conveyor (Upper for assembly, Lower for carrier recycling)
- Applies to screws M0.8-1.2
- Real-time torque monitor



## Medical

### Hemodialysis apparatus Assembly Line

- Applies to 1.4/1.6/1.8/2.0 hemodialysis apparatus
- Get a bunch of soft artificial blood vessels into blood dialyzer case automatically without causing any pollution and mess
- Integrates auto-casing, auto- assembling lid
- UPH, 360
- Yield>99.9%



### Hemodialysis apparatus Drying Machine

- Applies to 1.4/1.6/1.8/2.0 hemodialysis apparatus drying
- 6 drying modules
- UPH, 288
- Yield>99.9%



# 03

## Project Experience

### New Energy



#### ■ Battery Cell

High precision auto-welding equipment  
Battery into Shell  
High precision assy equipment  
Battery auto-sorting

#### ■ Battery Module

Module Auto-assy

#### ■ PACK Assy

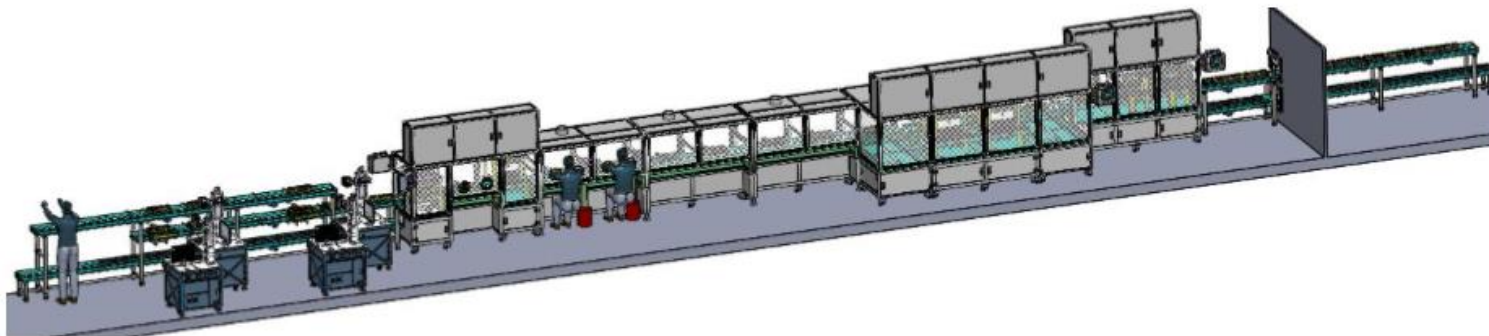
High precision measurement  
Auto-welding equipment  
Air leak testing  
PACK production line



# 03

## Project Experience

Automatic Line For Pulling Pin, Pulling Plug, Filling Nitrogen And Filling Helium



- Achieve pulling pins, pulling plugs, filling nitrogen, filling helium automatically
- Greatly reducing the difficulty of putting the battery into shell
- The production efficiency is 5 times of the original manual line efficiency, and saving 70% manpower.



# 03

## Project Experience

### New Energy



### Battery into Shell

- Put battery into shell by robot
- Reduce the difficulty of putting battery into shell
- CT : 15PCS/m
- UPH > 600PCS
- Cooperate with auto-welding machine, can reduce 90% manpowers
- Applies to different type of square battery

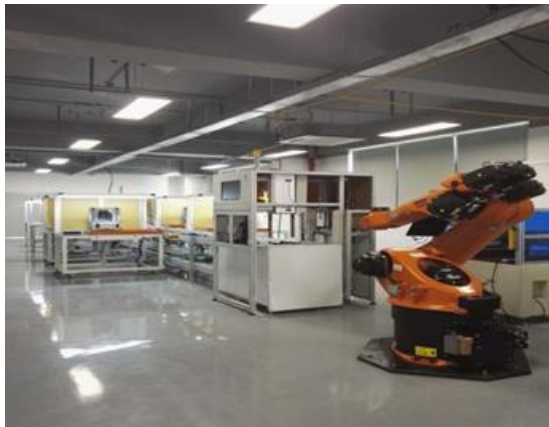




# 03

## Project Experience

New Energy



### Battery Sorting

- Applies to different types of new energy battery
- Battery quality-level could be set up freely
- Flexible manufacturing
- UPH > 3000PCS





# 03

## Project Experience

New Energy



### PACK Production Line

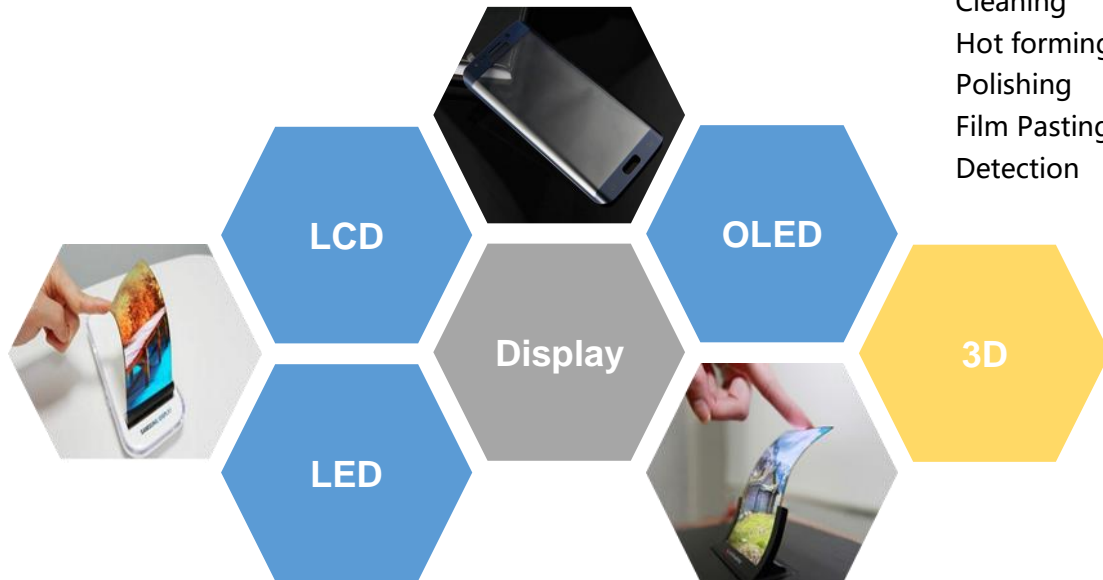
- Applies to 18650/26650 battery
- Battery MES developed by RS & Transfact for data tracking
- Combines anode testing, CCD inspection, Screwing and barcode scanning
- UPH : 150 cells\*1pack per hour
- Yield >99.9%



# 03

## Project Experience

### Display



#### ■ 3D

Forming  
Cleaning  
Hot forming  
Polishing  
Film Pasting  
Detection

#### ■ Array

Ultrasonic Cleaning Machine  
Short Inch Inspection Machine

#### ■ Cell

Large Alignment Inspection Machine  
Small Alignment Inspection Machine

#### ■ CF

Laser Marking Perforating Machine  
Laser Marking Code Machine

#### ■ LCM

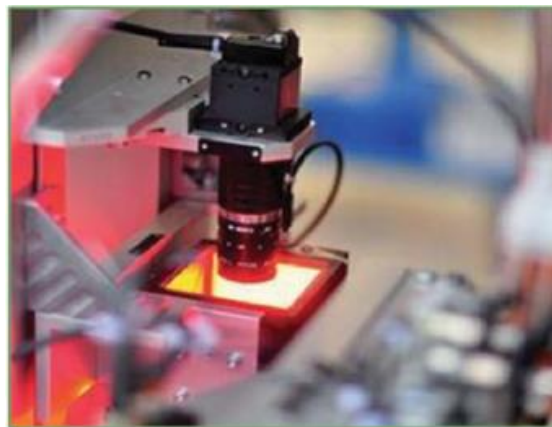
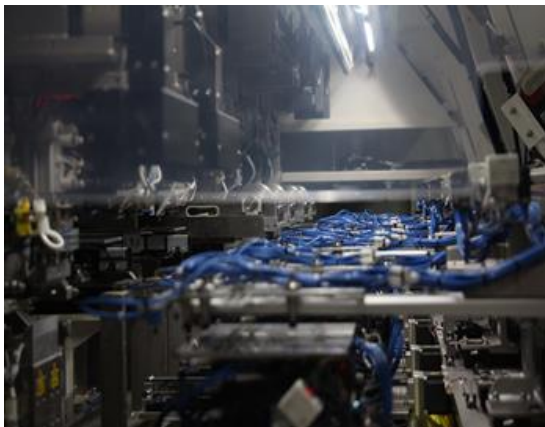
FOG  
COF  
UV Silicon Self-coating Machine  
COG  
75 inch COF Semi-automatic  
Repair Equipment



# 03

## Project Experience

### Display



### FOG Bonding Line

- Applies to 1-8inch
- Accuracy for ACF X :  $\pm 0.15\text{MM}$  Y :  $\pm 0.1\text{MM}$
- Accuracy for FPC X :  $\pm 8\text{UM}$  Y :  $\pm 10\text{UM}$
- C/T : 3.5S
- Process flow : Auto-loading -> 2 cavities auto-pasting -> 2 cavities pre-bonding -> 4 cavities bonding -> auto-unloading



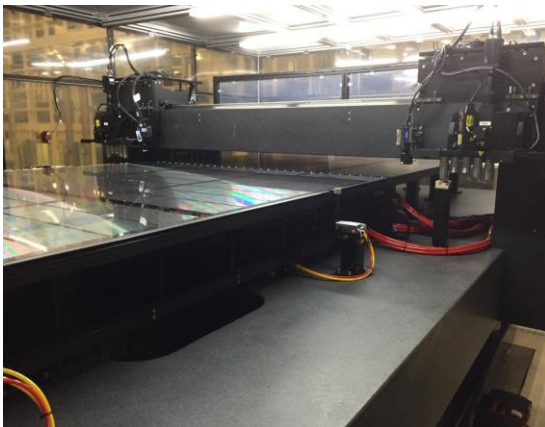
# 03

## Project Experience

### Display

#### OLED Ultrasonic Cleaning

- Applies to front, middle, back process for G6 board
- Improve processing efficiency by cleaning particle through ultrasonic wave
- ESD data monitor uploaded to alarm system



#### OLED Short Inch Inspection Machine

- Applies for G6 board
- Mainly measure the pitch in the panel after exposure of Patten
- Repetition accuracy : +/- 0.1u



### 3D Glass Film Pasting (Protective film in process)

- Applies to 3D glass within 7"
- Auto loading & unloading & carrying
- Auto distinguish of NG/OK products
- 



### 3D Glass Film Pasting (Final product protective film)

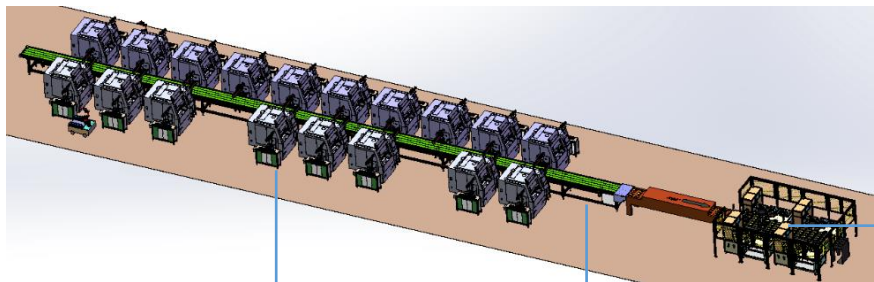
- Applies to 3D glass within 7", inner and outer protective film
- Auto loading & unloading & carrying & rolling over & stacking
- Auto distinguish of NG/OK products
- UPH : 360PCS



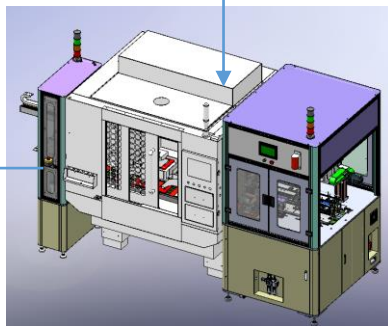
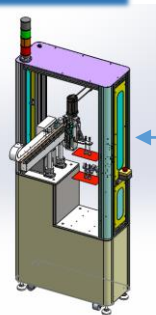
# 03

## Project Experience

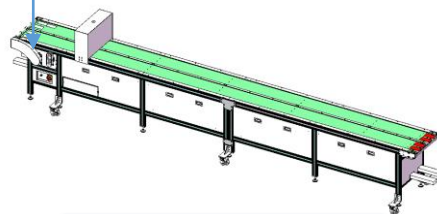
Intelligent white glass cutting CNC production line



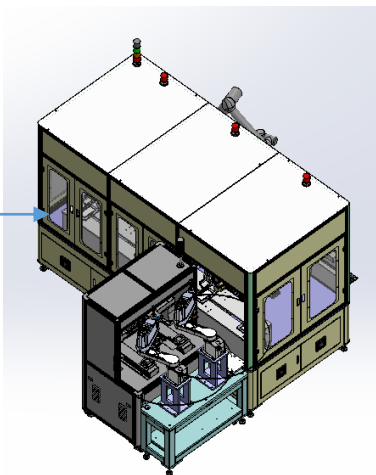
3D Receiving Machine



CNC + Charging Machine



Divided Assembly line



Sorter

UPH: 800  
Yield:98%  
Activation:95%  
AGV Serving



# 03

## Project Experience

3C Projects



### ■ Enclosures

High Precision Measurement

Air Leak Testing

### ■ Module

High Precision Assemble Equipment

High Precision Glue Dispensing and Jetting

Auto-welding Equipment

### ■ FATP

High Precision Assemble Equipment

High Precision Glue Dispensing and Jetting

Auto-welding Equipment

UV Curing

Air Leak Testing

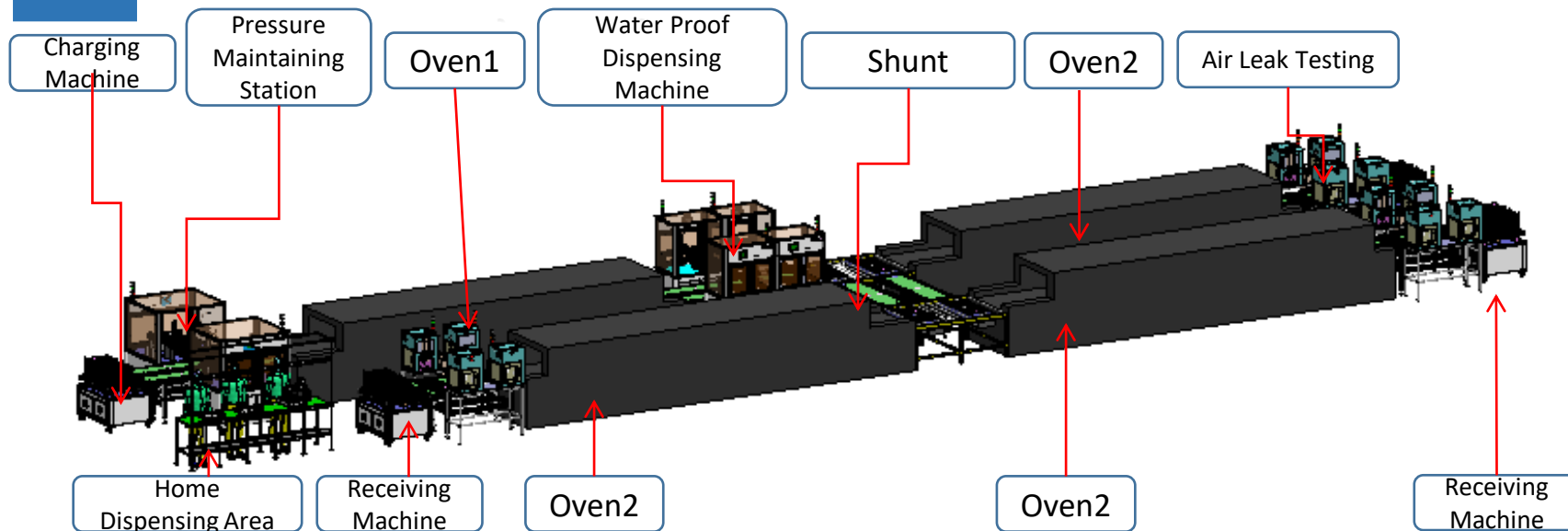




# 03

## Project Experience

### Smart Phone HOME Key assembly line



- 1. This line includes: 1 home dispensing machine, 4 stackers, 2 Home key press machine, 4 water proof dispensing machines, 12 air leak testing machines
- 2. Customer provides: oven, Home key dispensing machine, water proof dispensing machine
- 3. Labours: OP= 3, Charging=1, Receiving=1, inspection=1





# 03

## Project Experience

### 3C Projects



### Bracelet Assembly Line

- Controlled by PLC
- Robot with CCD for material loading & unloading
- Combines auto loading, soldering, pasting, glue dispensing, detection and packing
- UPH > 600PCS
- Yield > 95%



# 03

## Project Experience

### 3C Projects

#### Air Leak Testing

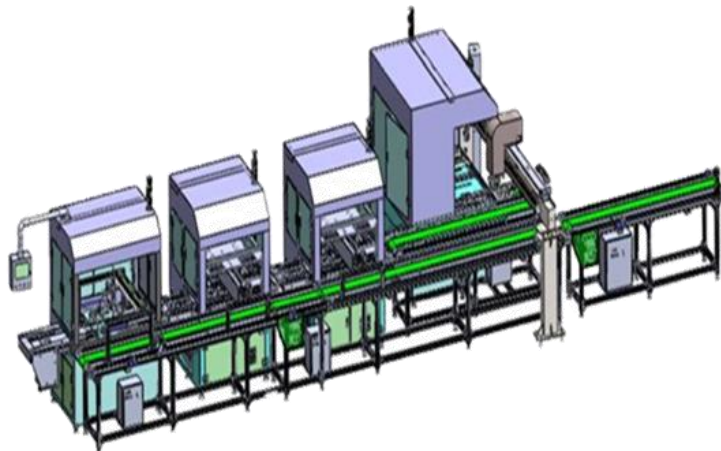
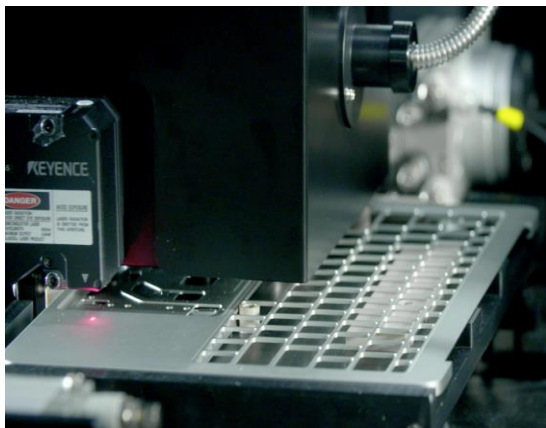
- Technology comes from RS TECH
- Customized Air Leak Sensor
- High precision self-adjusted sealing room, could be used to test all kinds of parts
- Accuracy: 0.002sccm
- Repetition : 0.001sccm
- Offering more stations customization



# 03

## Project Experience

3C Projects



### TC Measurement System

- Auto data collection and analysis
- CCD, probe, point laser and linear laser integrated
- Auto distinguish & collect NG/OK products



# 03

## Project Experience

### Button Cell Welding Assembly Line



#### Button Cell Welding Assembly Line (Germany project – 6 full lines)

- > Divided into front end (assembly line) and back end (test line)
- > Total 17 machines with 3 POS and 3 NEG tag welding machines, designed with Epson robots and Cognex CCD.
- > The whole line process: barcode scan + voltage & impedance check, tray to carrier, positive tag welding, AOI 1, side tape sticking, negative tag welding, AOI 2, voltage check, NG sorting; 5 days for storage back to back end to do barcode scan + voltage & impedance check, tray to carrier, top tape and unloading.
- > UPH can reach over 1000pcs
- > CT: 3s/pc



# 03

## Project Experience

The first 3C machining intelligent factory in southeast China



物理工厂



虚拟工厂



### Aspects:

- Design, manufacturing, control all by RS Tech
- Modularization
- Get all management software collected
- Intelligent operating decisions

- 102 sets robots
- 200 sets CNC
- 20sets high precision inspection machines
- 20 sets high speed positioning machines
- 2 sets auto-warehouse (3200 storage areas)
- 8 sets AGV
- Software system, MES/ERP/APS/CAPP/PLM/WMS
- 20 production units

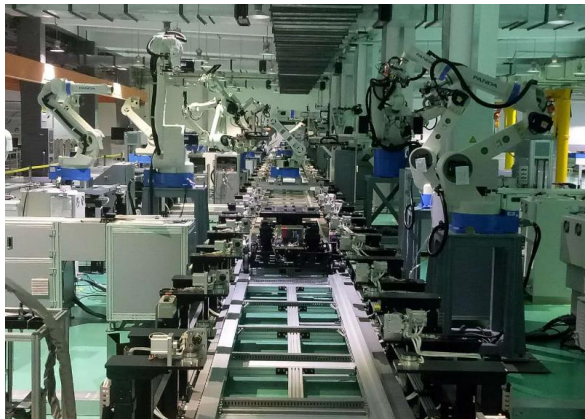




# 03

## Project Experience

### Industrial Robot Manufacturing Digital Factory

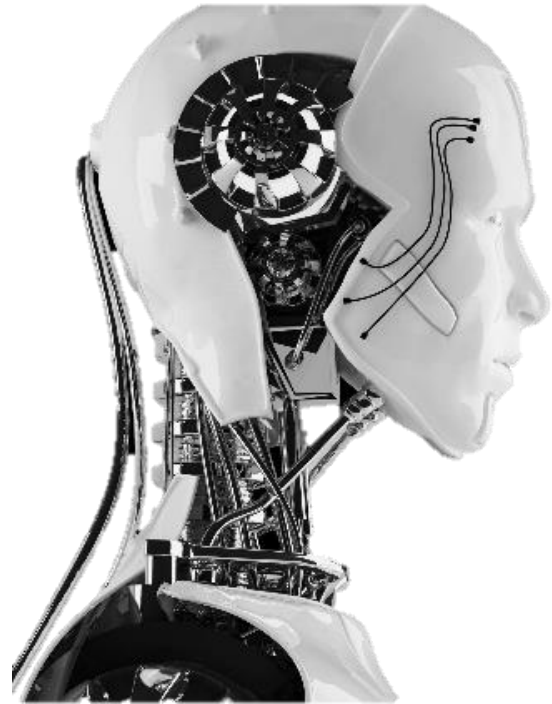


- Length:54m, Width:15m, Carriers:45;
- Compatible with 2 models (PR20D&PR1400P), Supporting mixed line production;
- Including 22 stations (Robot: 21), Manual station:5, Automation rate: 77%.



# PART 4

## New Technologies



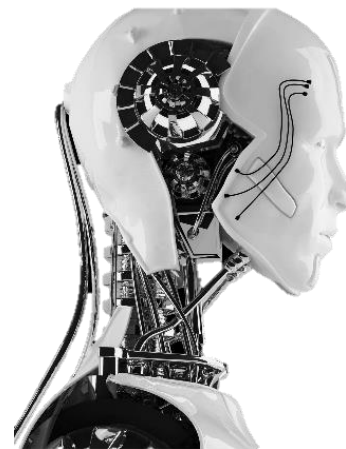
## 04 Intelligent Factory



3D AOI



5G  
Comprehensive  
Measurements



AI





# Thank you !



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