

Solomon Technology Corporation 3D Vision . AI . Robotics

2018

SOLOMON Technology Corporation

SOLOMON Presentation Agenda

- **X** Company Profile
- **※ 3D Optical Introduction and Application**
- ※ Deep Learning Introduction and Application
- ※ Appendix

SOLOMON Solomon Technology Corporation

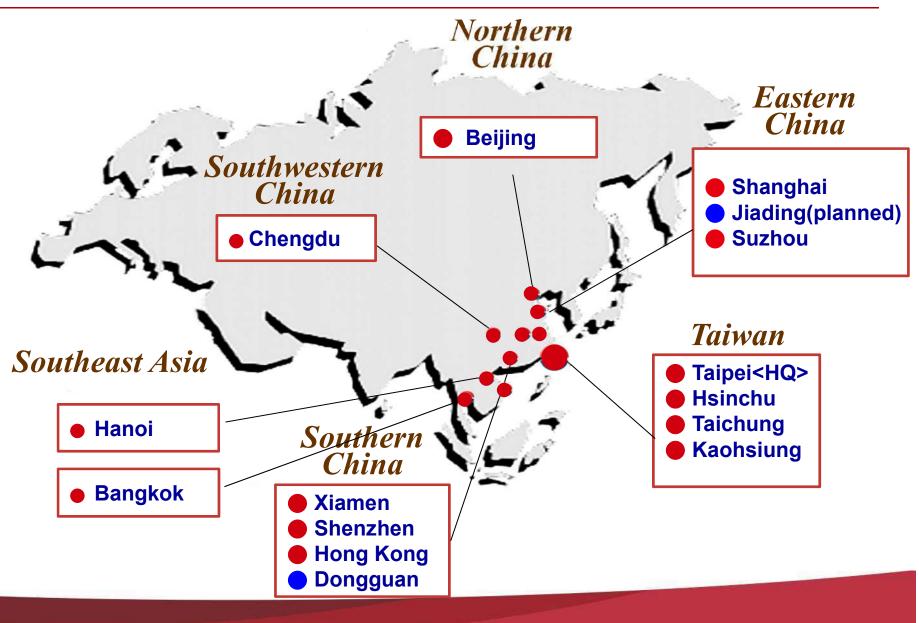
- Established : 1973
- Public Listed : 1996 (TWSE: 2359)
- Capital : NT\$1.71bn
- Consolidated revenue : NT\$4bn (2018 year)

 Main activity : Industrial vision, networking, robotic arm applications, automated control systems, energy equipment, LCD displays and other solutions.





Locations



SOLOMON Solomon Group Business Unit Struction

Intelligent Manufacturing

Visual Business Unit IoT Business Unit System Integration Business Unit Robotic Business Unit

Power Business

Technology Business Unit Gas Genset Business Unit

所羅門 SOLOMON

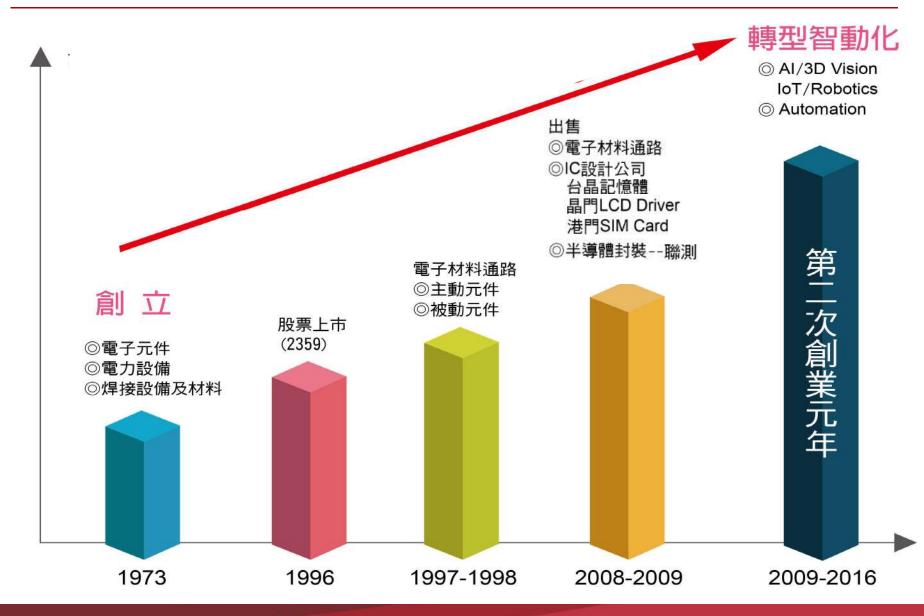
Automation Business

Automation Business Unit Encompass Business Unit LCD Business (Angency) SGD (Manufacture) Data International (Manufacture) Others Component Business Hygiene Business

© 2018 SOLOMON Technology Corp. All Rights Reserved



Development



SOLOMON Presenation Agenda

X Company Profile

※ 3D Optical Introduction and Application

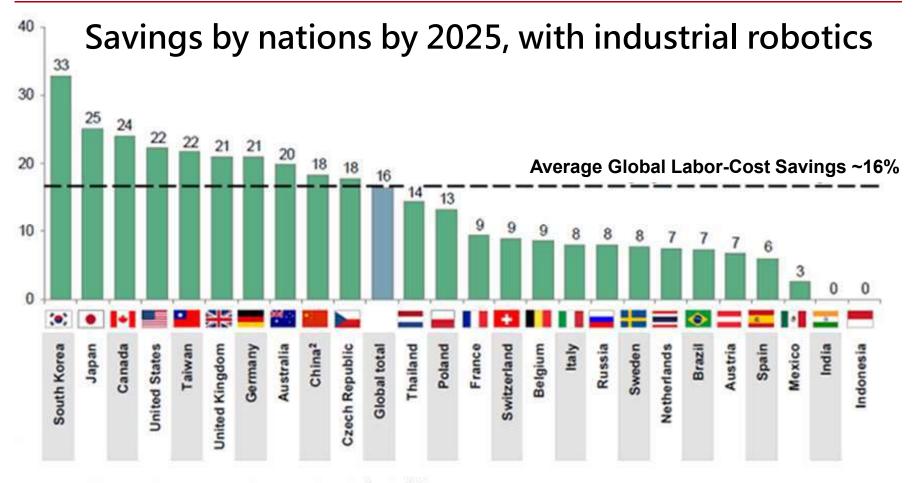
X Deep Learning Introduction and Application

X Appendix

SOLOMON Intelligent Automated Robotic Industry

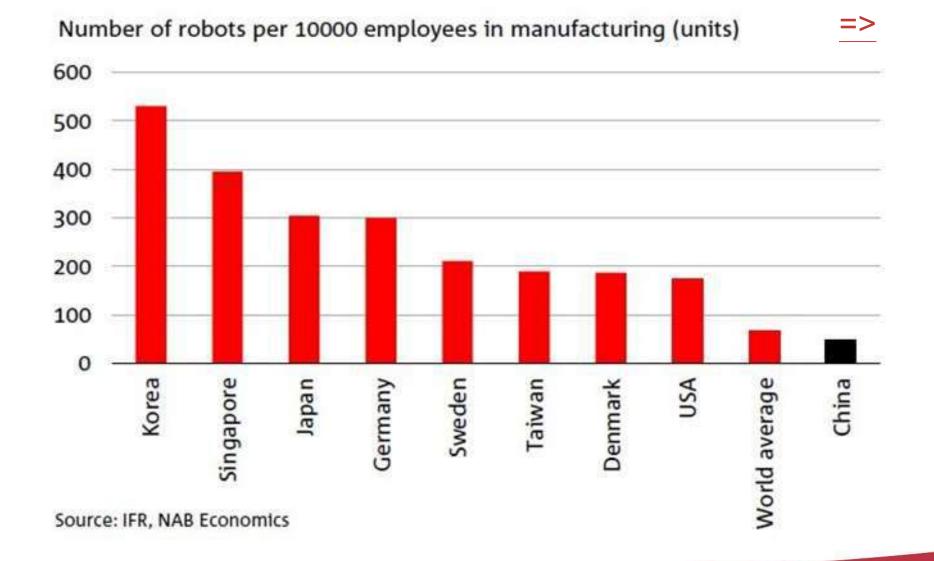
- Traditional industrial automation market trend
- Industrial robotic implementation rate is still relatively low <u>=></u>
 - Safety
 - Hardware and Software user friendliness
 - To obtain Universal Robots distribution rights =>
- Robots need to be more intelligent in order to be used in a massive scale
 - Eyes 3D Optical
 - Brain Al Deep learning
 - Wrist and Finger Strength sensor and pinching testing jigs

SOLOMON Labor Cost Reduced by Industrial Robotics



Source : Boston Consulting Group, 2015年2月↔

SOLOMON Robotic Usage Has Large Room to Grow







所羅門 SOLOMON

Achieve what 2D optical can not

For example:

- Automated Shoe Lacing = >
- 3D random object identification and categorization
 => => => =>
- Automatically determining 3D routes =>
- Can be apply to manufacturing, logistics, retail, warehouse
- Can also used with non industrial applications
 - Medical 3D scan =>
 - Museum 3D scan =>
- Self driving vehicles or drones

所羅門 SOLOMON

Mission Impossible by Adidas

Source : 2017-04-25 Freedom Times

Adidas says manufacturing to return to Euro and the States is an illusion

Adidas' CEO Kasper Rorsted says that Trump' s pressuring manufacturers to return to the States is an illusion. Asian countries long term supply chain foundation is solid, impeccable. Emphasizing his point of view applies to the whole sport ware industry •....

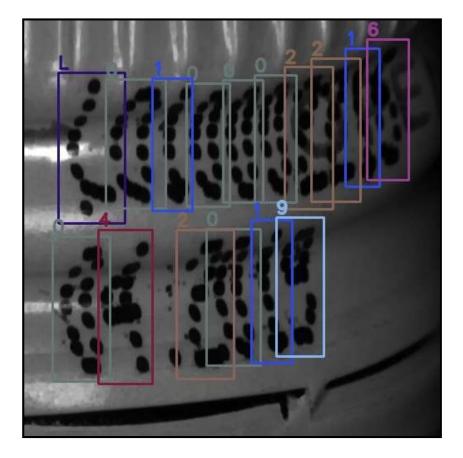
He also pointed out Asian factories' automated manufacturing will improve immensely, but with over 120 steps in producing Adidas shoes, some steps still need to be hand made. "Shoe manufacturing' s biggest challenge is that how to automate the process of shoe lacing, it is done manually today, no technology out there can do this" Rorsted said.

SOLOMON Presentation Agenda

- **X** Company Profile
- **※ 3D Optical Introduction and Application**
- ※ Deep Learning Introduction and Application
- ※ Appendix



Deep Learning Case Studies (Food)





SOLOMON Deep Learning Case Studies (Shoe and Textile)

| Needle machine inspection | Shoe logo inspection | Fabric inspection |
|---------------------------------|-------------------------|----------------------|
|---------------------------------|-------------------------|----------------------|

SOLOMON Deep Learning Case Studies (Action)





- Inspect what traditional AOI can not, such as random faults and patterns.
- Commercialized packaged software.
- User only need to use minimum amount of samples, no need to write any programs
- Includes 2 modes: Supervised learning and Unsupervised learning



Certified by Cobot, Leading Brand in 3D Optical

◎ UR is the world's biggest robotic brand, 400 distributors world wide

| | k 3D Universal × | 100 | - | | 1000 | | <u>e</u> l. | |
|-------------------------------------|---|-------------------------------|---------------------|----------------------|---------------|-------------------|-------------|-----|
| $\leftrightarrow \ \Rightarrow \ G$ | ▲ 安全 https://www.universal-robots.com | /plus/product/accu | pick-3d-22780-32726 | 5/ | | e |). Gr | ☆ 🖸 |
| | < BACK TO HOME | ()) CHOOSE LANGUAGE | ACADEMY CAREER CO | ONTACT US FIND DISTR | ibutors suppo | ORT UNIVERSAL ROB | OTS+ | |
| U | INIVERSAL ROBOTS 🕂 | | END-EFFECTORS | S ACCESSORIES | SOFTWARE | DEVELOPER | Q | |
| A | CCESSORIES > PRODUCTS > PLUS > VISION > ACCUPIC | ж 3D | | | | | | |
| | ACCUPICK 3D | | | | | | | |
| f | | | | CONTACT DE | VELOPER | | | |
| in | SOLOMON | | | | | | | |
| У | | | SOLOMON | | | | | |
| 8+ | | - Ta | | Visi | on with l | ntelligence | | |
| <u>_</u> | | CERTIFIED BY UNIVERSAL ROBOTS | | REQUEST / | A QUOTE | | | |
| | | | DATASHEETS | S | | + | | |
| | | | GO TO DEVE | LOPERS WEBSITE | Ē | R | | |



Robotic Exhibitions



Japan Robot Association Vice President-橋本康彥, Visiting Tokyo Shows at Solomon's Booth

© 2018 SOLOMON Technology Corp. All Rights Reserved



Kawasaki and Solomon Joint Effort to Develop Japanese Market

Kawasaki cooperating with Solomon, promoting Solomon's 3D Optical and Deep Learning products



SOLOMON 2018 Taiwan Excellence Award

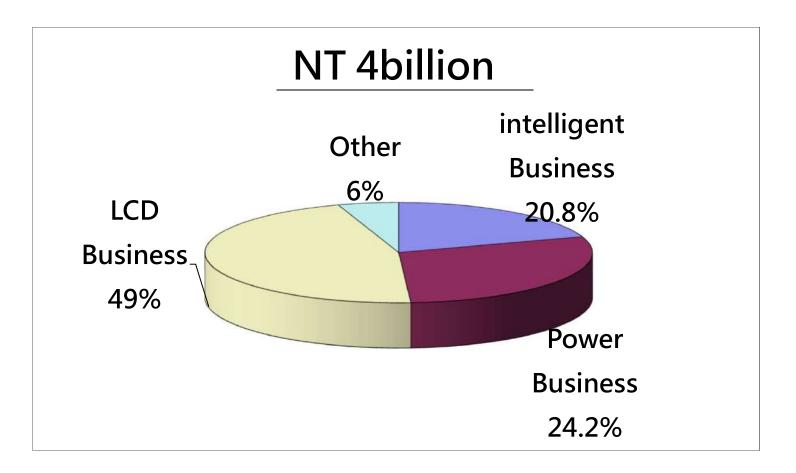


SOLOMON Presentation Agenda

- **X** Company Profile
- **※ 3D Optical Introduction and Application**
- ※ Deep Learning Introduction and Application
- ※ Appendix

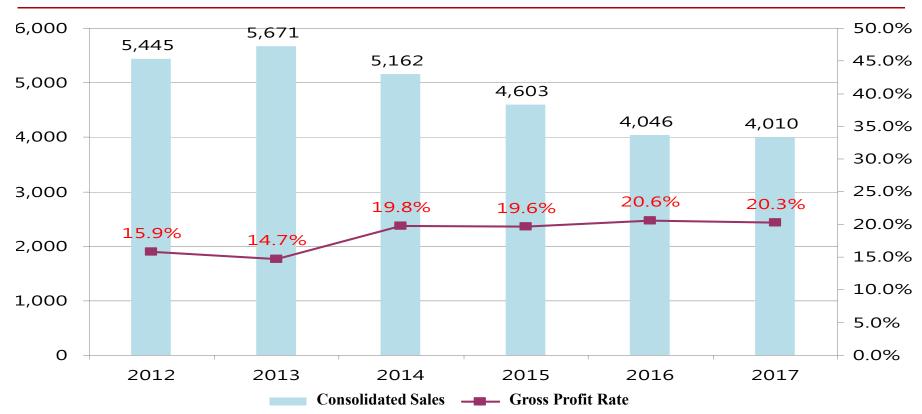


2017 year - Consolidated Sales





Operating Performance

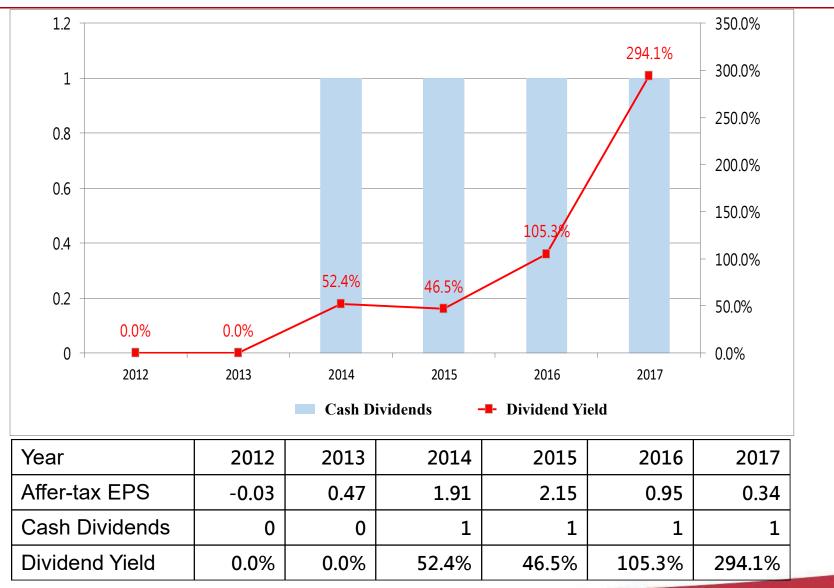


Unit: NTD million

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--------------------|-------|-------|-------|---------------|-------|-------|
| Consolidated Sales | 5,445 | 5,671 | 5,162 | 4,603 | 4,046 | 4,010 |
| Gross Profit Rate | 15.9% | 14.7% | 19.8% | 19.6 % | 20.6% | 20.3% |
| Net Income | (5) | 87 | 339 | 369 | 162 | 59 |



Dividend Policy





Thank You.

© 2018 SOLOMON Technology Corp. All Rights Reserved