

The logo of the Chi Cheng Group, featuring a red square border with rounded corners. Inside the square, the Chinese characters "成成" (Cheng Cheng) are displayed in a stylized, metallic, three-dimensional font.

***Our 2020
Presentation***

**Welcome to
Chi Cheng**

CHI CHENG GROUP
<http://www.chicheng.com.tw>

Chi Cheng Core Tech & Capabilities

Design & Engineering

- 3D printer
- Industrial Design
- Mechanical Design
- Reverse Engineering
- Mold-Flow Analysis
- Mechanism Analysis
- Jig/Fixture Design
- Automation Design
- Visualization System
- 3D Tooling Design

Plastic Molding Capabilities

- Plastic Injection
- Insert Molding (reel to reel / Vertical rotary / Horizontal)
- Rapid Tooling
- Double Injection*

Metal Stamping CNC NC Capabilities

- Progressive Tooling
- Stage Tooling
- Robot transfer Tooling
- Multi Strip Feeding Tooling
- Deep Drawing
- Prototyping
- CNC
- NC

Secondary Process & Surface Finish

- Anodizing *
- Dual Anodizing *
- Painting *
- Selective Plating *
- Diamond Cutting *
- Chemical Etching *
- Hair-Line Finish *
- Laser Etching
- Laser Engraving
- Pad/Silk Screen Printing
- Spin-Finish
- PVD *

Assembly

- Rivet Assembly
- Ultrasonic Welding
- Heat Staking
- Laser Welding
- Spot Welding
- Thermal Bonding

Test & Measurement

- CAV/CMM System
- Solder ability Test
- Salt Spray Testing
- Plating Thickness
- Plating Adhesion
- Hardness
- Melt flow Index
- LAB Color Test
- Load Testing
- Pull force
- High Voltage Test
- Abrasion Test
- Reliability Cycle Test
- Radio Frequency Test (Antenna)
- Impact Test
- Customized Testing Equipment (leak test)

Our Capabilities of TCC & PCC & ZCC for the Industries

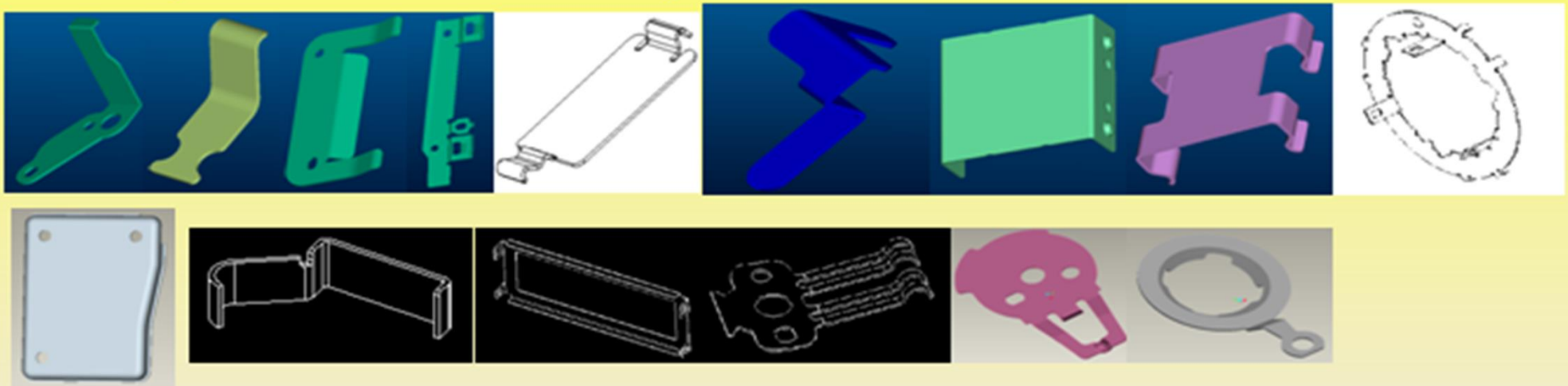
- *Metal Prototyping Modular*
- *Plastic 3D printer system*
- *Metal & Plastics Tooling*
- *Metal Stamping*
- *Plastic Injection Molding*
- *Insert Molding*
- *Automated production*
- *CNC machining process*
- *Composite Material Part*



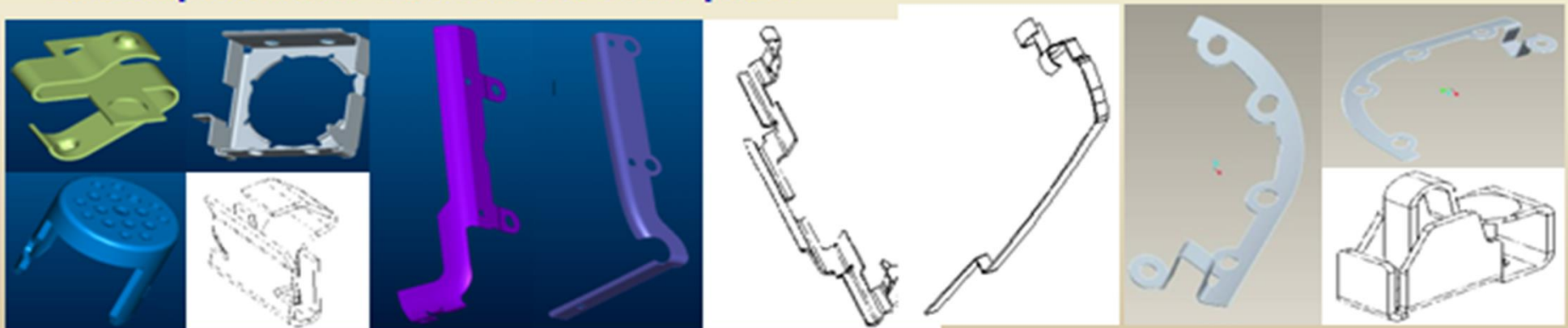
Metal Prototyping Modular

According to the typical characteristics of metal products like cutting / punching / drawing / bending, we set up a rapid common module with reused die templates and key parts replacement to achieve reduction of sample Lead Time and mold manufacturing cost.

1. Simple inner structure & outer parts



2. Complex inner structure & outer parts



3D Printer System

Material : Photosensitive resin

Parameter	WBSLA2820	ABS(compare)
Tensile strength	41~50.6 M Pa	45.7 M Pa
Elongation at break	15 ~ 25%	41.60%
Elongation at Yield	3.3 ~ 3.5%	NA
Elastic Modulus	2650 ~2880 M Pa	2000 M Pa
Flexural strength	68.1 ~ 80.16 M Pa	73.5 M Pa
Bending modulus	1640 ~ 2270 M Pa	2300 M Pa
Notched impact amount	0.27 ~ 0.45 J/cm	1.6 J/cm
Index of refraction	1.512 ~ 1.515	1.52
Water absorption	0.35%	0.20 ~ 0.45 %
Glass transition temperature	52 ~ 58 ° C	NA
Heat distortion temperature 0.46 M Pa ~ 1.81 M Pa	55 ~ 75 ° C	94 ~ 207 ° C

Spec / limitation / time

1. The smallest dimension can produce is 0.5 (L) *0.5 (W) *0.5 (H) mm
2. The biggest dimension can reach until 298 (L) *185 (W) *203 (H) mm
3. Only machine using the photosensitive resin
4. Smallest R is 0.2mm , but will follow the position of work pieces to show the fine level features itself
5. Every inch dimensions of the components is 0.001-0.002 inch (0.025-0.05 mm).
The accuracy will affected by manufacturing parameters, part geometry and size, portion of work pieces and post processing . In general, the device can be achieved $\pm 0.1\text{mm}$.
- 6.The process time is depend the height of part.

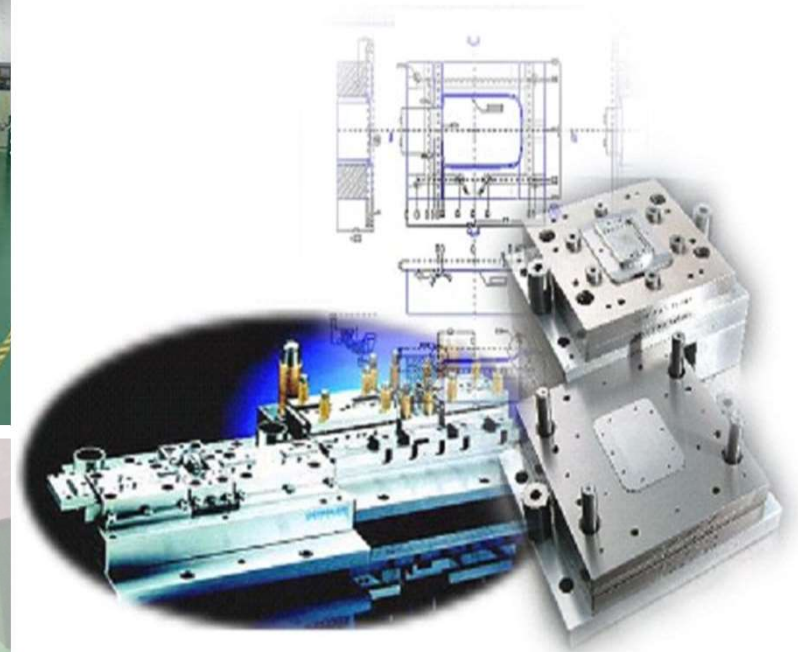


3D Printer Samples

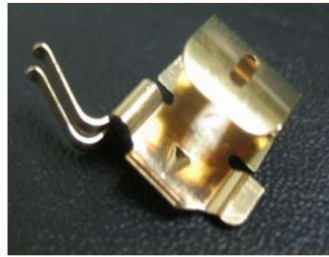
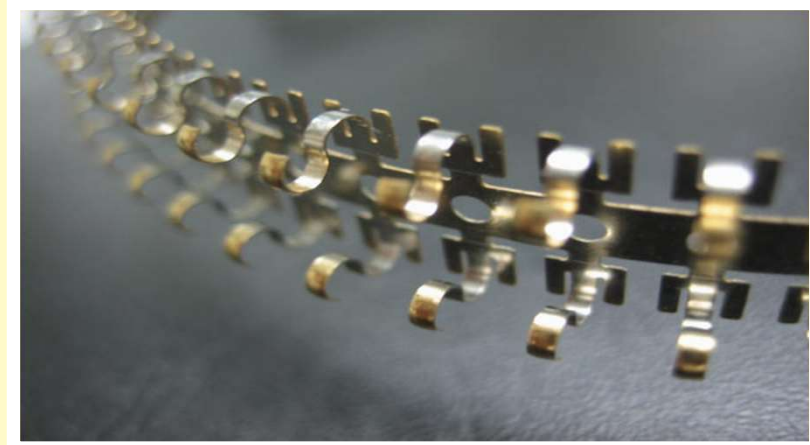
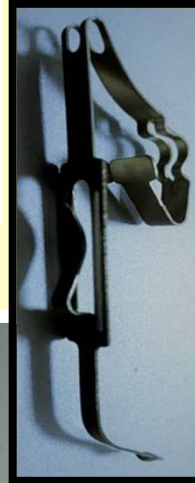
Material : Photosensitive resin + Metal



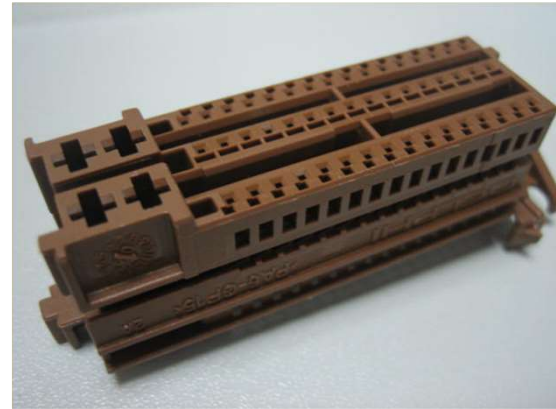
Tooling Fabrication



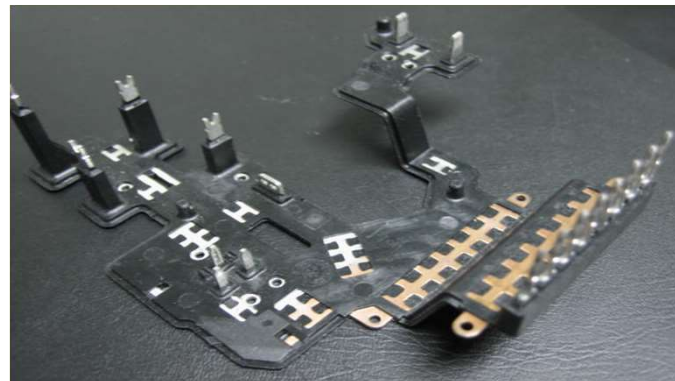
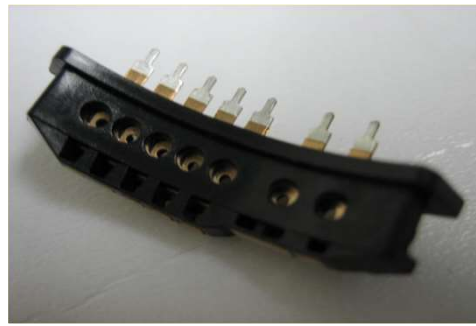
Metal Stamping



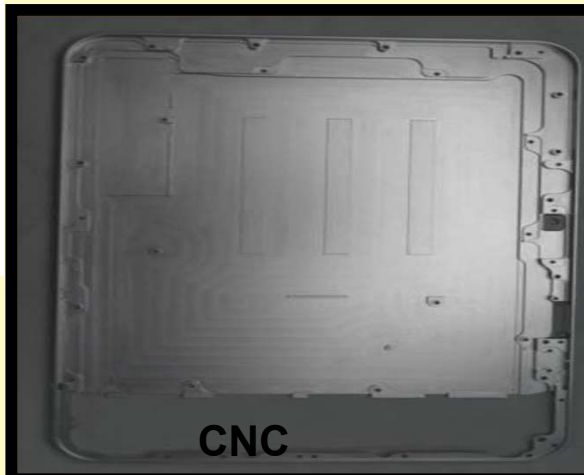
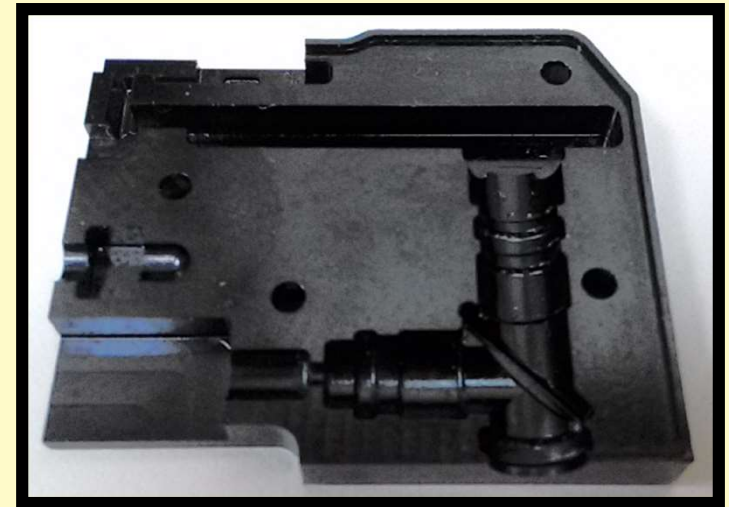
Plastics Injection



Insert Molding



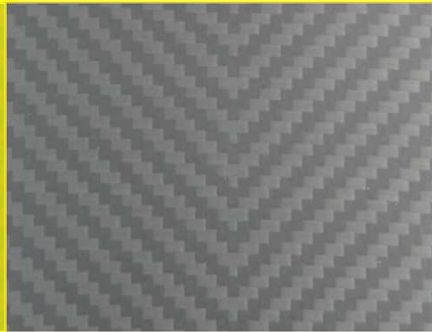
CNC & NC Applied Parts



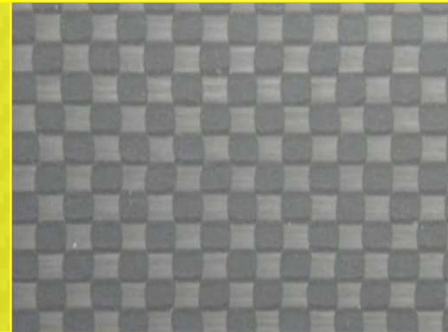
Composite Material Applied Parts



Red twill



V pattern



Flat weave



DROID Manufacturing Commercial - YouTube (720p).mp4

Assembly Capabilities



Screw & Rivet



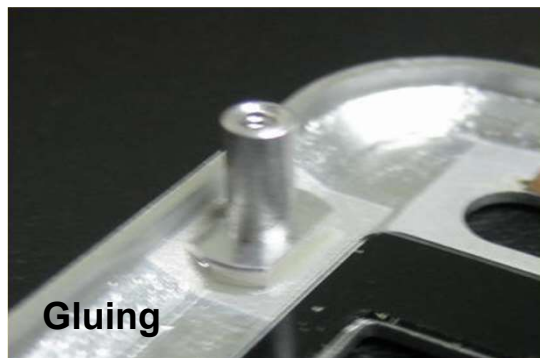
Thermal Bonding



Laser Spot Welding



Heat Staking



Gluing

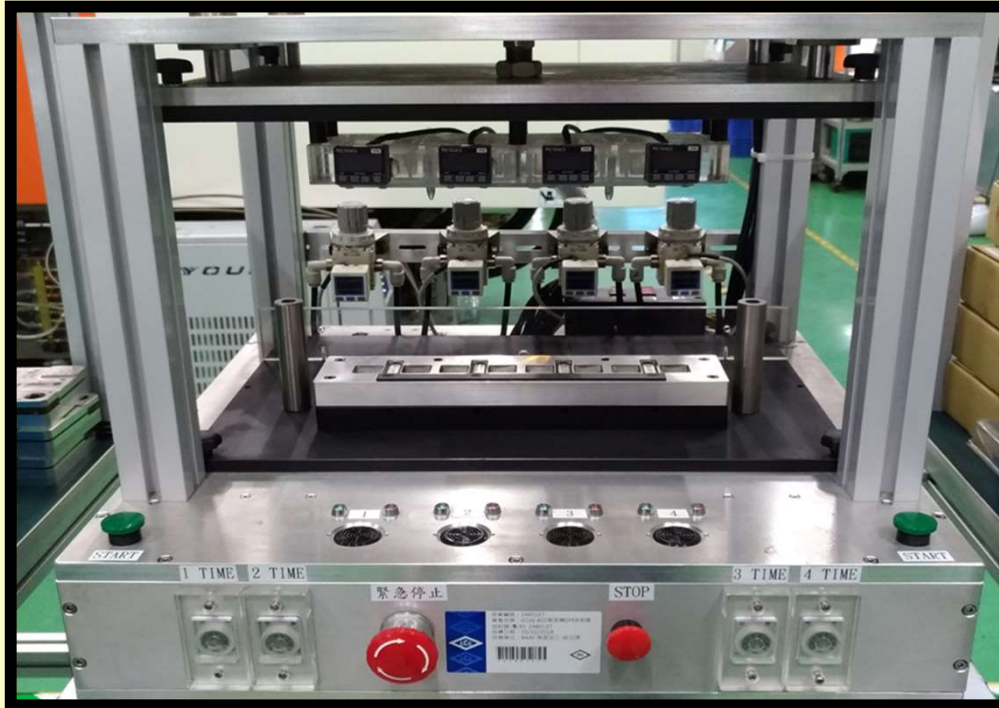


Assembly



Camera Assembly

Leak Tester & Test Specification



Vacuum Testing :
The test parameters
Initial Vacuum 6.60 in-Hg
Vacuum Time: 5 s
Hold Time : 30 s
Allowable Pressure Delta
Hold : 0.1 in-Hg



Product Lines - IPC

**19" Rack mount
Chassis
(1U-7U)**



**Storage RAID
Chassis**



Enclosure Chassis



DVR / NVR Housing



2U Chassis



Product Lines - IPC

NAS / DAS Housing



High-End Mobile Rack



**HDD Enclosure
SATA / SAS / Mini SAS**



**19" 3U 16 Bays Rack mount
Chassis**



- **OEM Customized Product**
- **Sheet Metal Product**

Our Quality Certification

ISO 9001
ISO 14001
IATF 16949

 **RoHS**
COMPLIANT

Certificate
of
Green Partner

Zhuohai Chi Cheng Technology Co., Ltd.
珠海奇成科技股份有限公司

SONY

CERTIFICATE

TUV
Technische Universität
Vieringen

The Certification Body of
TUV AMERICA, INC.
Overton, Massachusetts 01844

Taiwan Chi Cheng Enterprise Co., Ltd.
No. 111, Chung-Shi Rd.
Chung-Shi City, Taipei, Taiwan, R.O.C.

has implemented a Quality Management System
in accordance with:

ISO 9001:2008 3rd Ed.
Manufacture and Assembly of Electronic
Components and Accessories, and the repair of
Electronic Components and Accessories.



及成企業集團-昆山廠
品質政策
技術創新
INNOVATORY TECHNIQUE
技術を創造し
品質優良
EXCELLENT QUALITY
品質は最優先
服務滿意
SATISFIED SERVICE
サービスを満足させる
製程持續改善
PROCESS CONTINUOUS IMPROVEMENT
製造工程の改善を続ける

