



FIRST MOLD
FIRST YOUR NEED • MOLD YOUR PART

www.firstmold.com



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FIRST MOLD 2022

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Marketing network, application industry, cooperation partners

5

Gallery

Office, staffs, moments



Part
One

About
First Mold

"First your need, Mold your part"



First Mold At Glance

First Mold Manufacturing Limited is located in GangKou Town, Zhongshan city. Currently we have a factory area more than 16,000 square meters. We are a manufacturer and trade enterprise (specializing in metal and plastic products) integrating R&D, design, production and sales.

First Mold Manufacturing Limited was founded in 2012 and became a Zhongshan City's regulated enterprise in 2018. After many years processing improvements and technological innovations, gradually we have formed a professional hardware processing and production. At the mean time, we have obtained a number of patented inventions (a PA12 gear-driven drying device for injection molding process) and utility model patents (High Bay). Also, the PA12 gear-driven drying injection molding technology product was recognized as a high-tech product in Guangdong Province in 2018.

In 2019 Our company was recognized as a "Zhongshan Engineering Technology Research Center". We mainly working on plastic, aluminum product models, plastic hardware parts, and rapid mold manufacturing and injection molding. It covers a wide range of industries, including mobile phone , auto, aviation , medical equipment, industrial and mining lamps and other fields. Equipped with first-class machinery production equipment, the products are exported to the United States, Canada, Britain, Australia, Singapore, Malaysia and many other places.

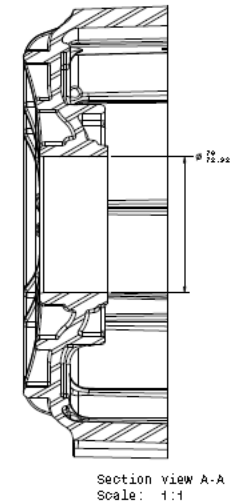
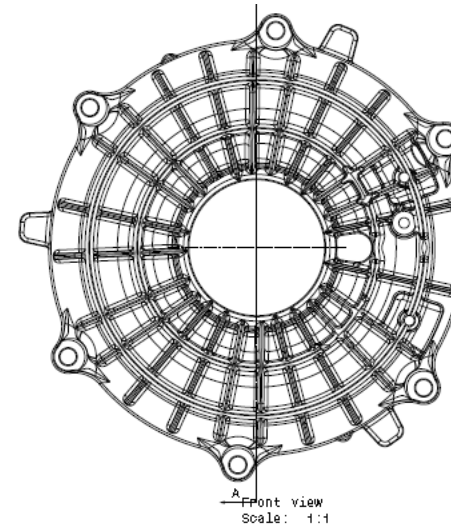


Core Competency

Our core competency is precision engineering, and that has given us all the competency of all the small volume works including rapid injection molding, die casting, because nearly all the small volume works need rapid tooling or post machining. That says most important works are done and controlled in house by our own machines and our own people.

First Mold competencies include:

- ✓ Precision machining in plastics and metals
- ✓ (Milling + EDM Eroding + Wire eroding + Grinding)
- ✓ Rapid injection molding & Pressure die casting
- ✓ Painting, artwork, and complete finishing



Development History

2011.05
Founded First Mold Manufacturing
for prototyping

2013.08
Expanded factory building to
4000m²

2018.12
Start building First Mold Industrial
Park in Gangkou town

2021.05
Moved in First Mold Industrial
Park

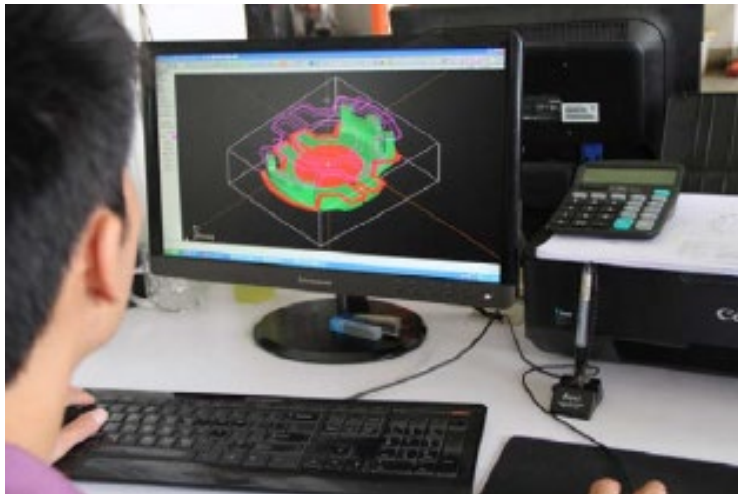
2012.12
Established Tooling and Molding
Dept.

2016.05
Moved tooling to the new #2
workshop

2020.12
Completed building First Mold
Industrial Park

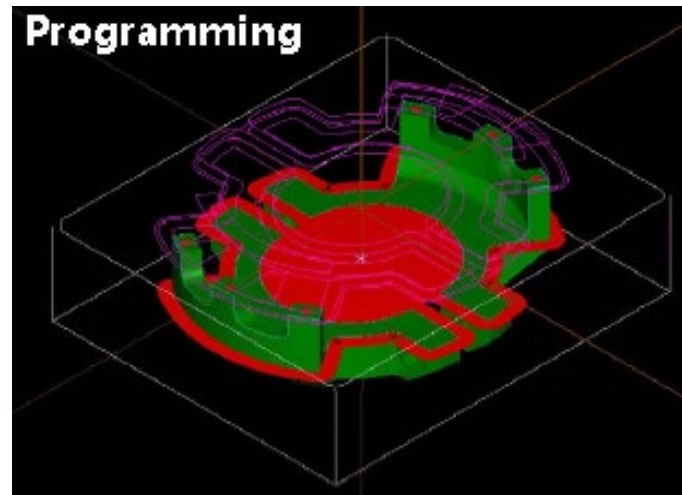


Step One



Send 3D design file & DFM

Step Two



Programming

Step Three



Machine Parts



First Mold
Production

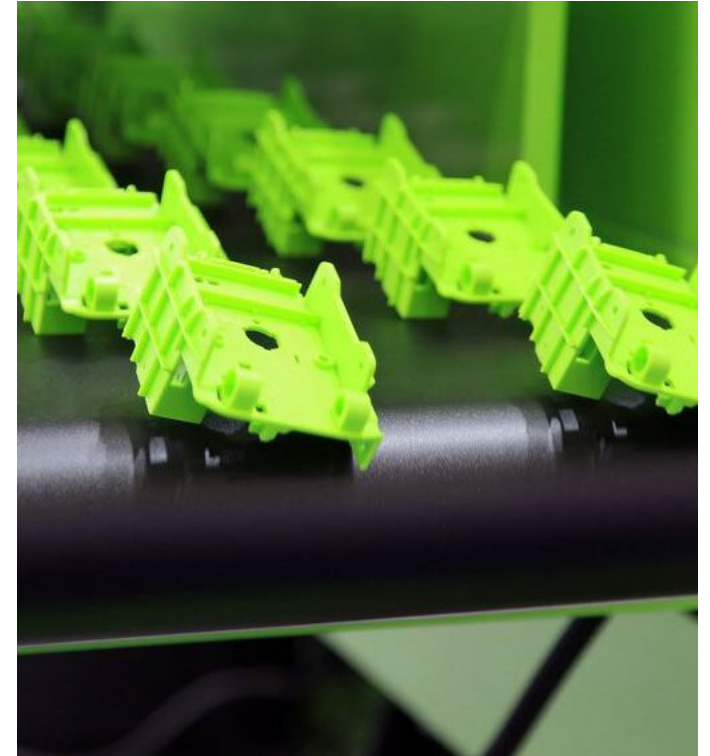
Part
Two



Rapid Prototyping



Low-volume Manufacturing



Mass Production

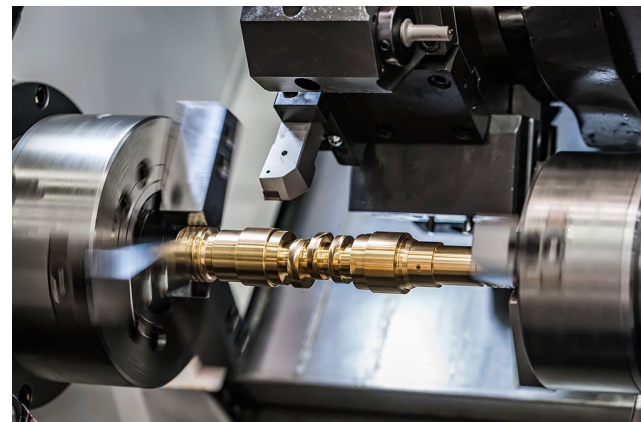
Capabilities : CNC Machining

First Mold CNC machining service is a quick and cost-effective approach to manufacture high-grade prototypes, tooling and high-precision end use parts in an array of engineering-grade materials.

At First Mold , our unique CNC precision machining capabilities allows you to take advantage of speed, precision, size, cost and even volume. With over 25 engineering-grade materials to choose from, we deliver CNC machining services that allows you to machine parts in your desired material without compromising on cost, functionality and speed. With CNC machining you can meet a wide range of your product development needs.



CNC Milling



CNC Turning



5-Axis Machining

Capabilities : Plastic Injection Molding

First Mold specializes in the use of rapid prototyping and mass-manufacturing techniques to produce high-end plastic injection molded parts and mold tools. Our plastic injection molding process is capable of making custom prototypes and end-use parts in as quick as 7 days. At First Mold, cost-efficiency is optimized by using aluminum mold tooling that can reproduce thousands of parts and accelerate your product development cycle.

We stock over 100 plastic resin materials to choose from and complement molded part with an array of finishes.



Injection Machine

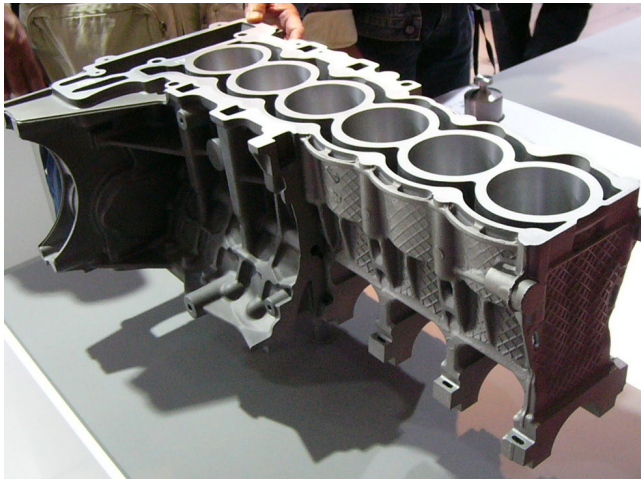


LED optical lens

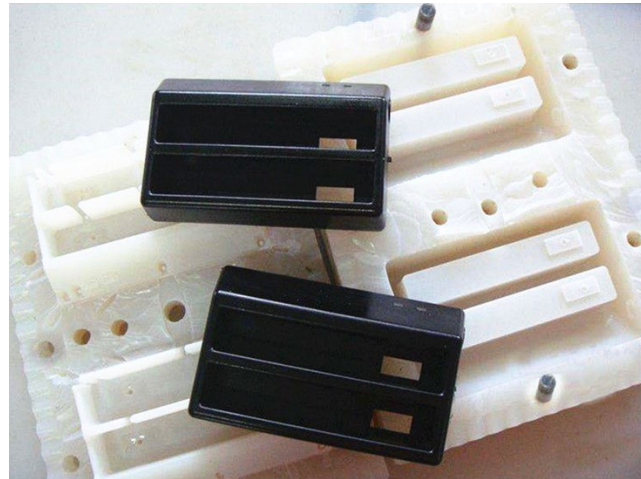


Overmolding

Capabilities : More



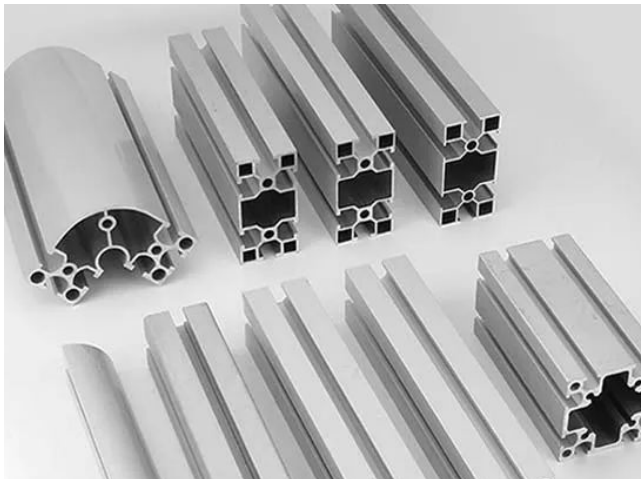
Die Casting



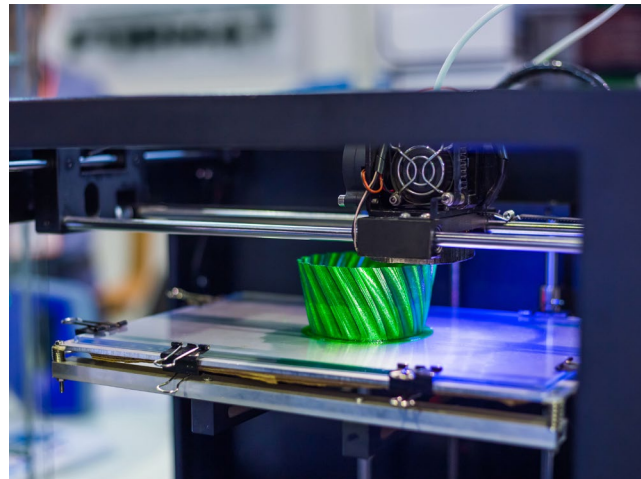
Vacuum Casting



Sheet Metal



Aluminum Extrusion



3D Printing



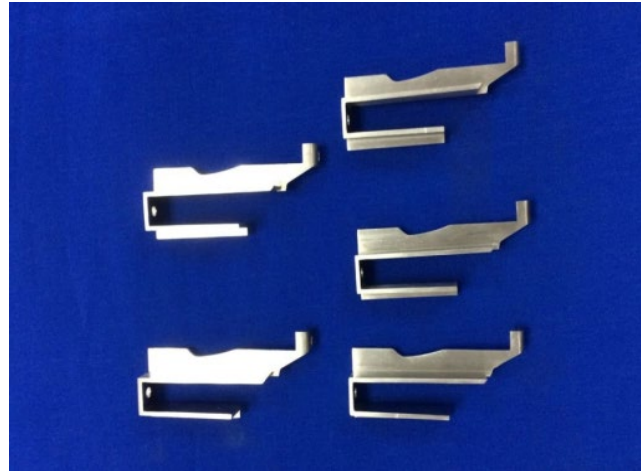
Finishing

Metal material options:

Aluminum, Zinc, Magnesium, Brass, Copper, Bronze, Mild Steel, Stainless Steel, Tool Steel, Tungsten and Titanium, etc.



AL6061-T6



304SS



Bronze



Q235



1050 steel



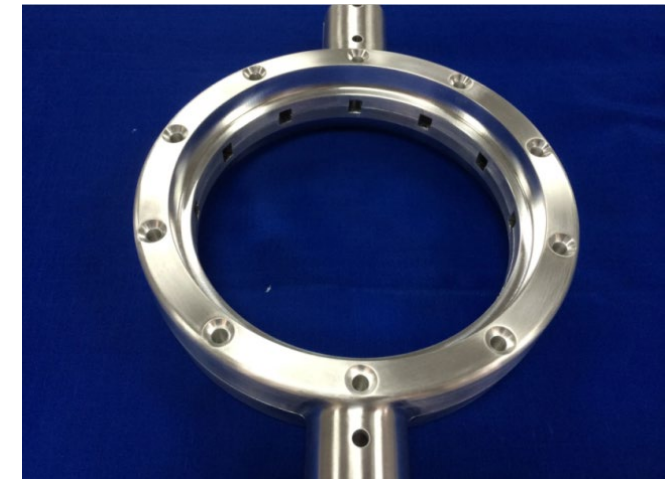
65-45-12



#45 steel



1018 steel



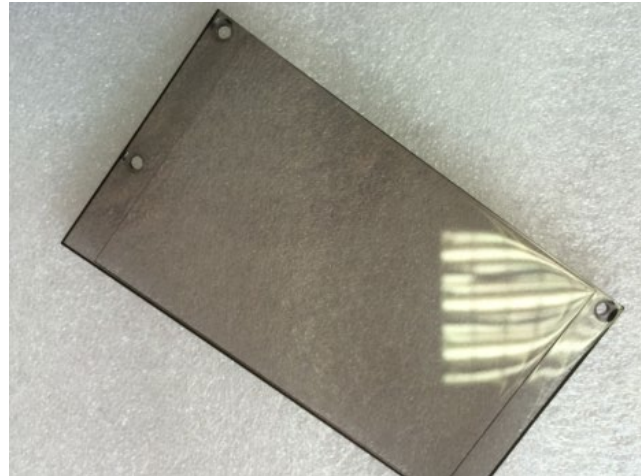
ALU6061-T6

Plastic material options:

ABS, PC, POM, PP, PMMA, PBT, PTFE, Nylon, 30% GF Nylon, PEEK and PVC, etc.



POM



Clear acrylic



ABS



PMMA



PVC



PC



PEI



PBT



PEEK

Capabilities : Equipment

Precision
Engineering shop

Tooling Shop

Injection
Molding Shop

Die Casting Shop

QC Room



CNC Center

Tooling Center

Injection Molding Center

Die Casting Center

QC Center

28

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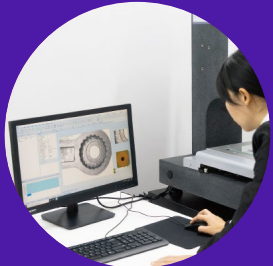
2

13

Capabilities : Quality Management System

1

Review
Drawings



2

Incoming
Quality
Control(IQC)



3

Tooling Process
Quality Control



4

Production In
Process
Quality
Control(PQC)



5

Outgoing
Quality Control



We operate under the Standard Quality Management System of GB/T 19001-2016/iso 9001:2015. We rigorously organized a quality management system plan and developed a professional quality system, and gained the SGS recognized ISO 9001:2015 Certificate of Quality Management System, and IATF 16949:2016 Automotive Quality Management System Certification.

Now, our company insists on following the quality policy of “Guarantee Quality, Increase Efficiency, Emphasize Service and Encourage innovation” for standardized operation and management.



Certificate IATF 0460536
 Certificate CN22/00003585
 The management system of

Zhongshan First Mold Manufacturing Limited

Building 2, First Floor of Building 1, No.88, West Shagang Road, Gangkou Town, Zhongshan City, Guangdong Province, P.R. China

has been assessed and certified as meeting the requirements of

IATF 16949:2016

Edition 1

For the following Scope
 Manufacture of injection plastic parts

EXCLUSIONS : 8.3 Product Design

3 Year certification is valid from 25 October 2022 until 24 October 2025 and remains valid subject to satisfactory surveillance audits.
 Version no. 1. Current version updated 25 October 2022

Authorised by
 Norman SHENG
 Veto Power Authority

Contracted Office : SGS United Kingdom Ltd, Station Road, Oldbury, B69 4LN, UK
 Email : Neil.Hall@sgs.com

IATF 16949:2016

Certificate CN22/00003587

The management system of

Zhongshan First Mold Manufacturing Limited

Unified Social Credit Code: 91442000MA55YF8645
 Business Registration Address: Building 2, First Floor of Building 1, No.88, West Shagang Road, Gangkou Town, Zhongshan City, Guangdong Province, P.R. China
 Business Operation Address: Building 2, First Floor of Building 1, No.88, West Shagang Road, Gangkou Town, Zhongshan City, Guangdong Province, P.R. China

has been assessed and certified as meeting the requirements of

ISO 9001:2015

For the following activities
 Manufacture of injection plastic parts.
 Design and manufacture of injection moulds.

This certificate is valid from 25 October 2022 until 24 October 2025 and remains valid subject to satisfactory surveillance audits.
 Issue 1. Certified since 25 October 2022

Authorised by
 Jonathan Hall
 Global Head - Certification Services
 SGS United Kingdom Ltd
 Rosemore Business Park, Ellesmere Port, Cheshire, CH65 3EN, UK
 t+44 (0)151 350 6666 - www.sgs.com

The certification information can be verified on the web site of Certification and Accreditation Administration of the People's Republic of China
www.ccaaq.gov.cn

ISO 9001:2015

Capabilities : Quality Assurance



Projector



Height Gauge



QC Department



QC Department

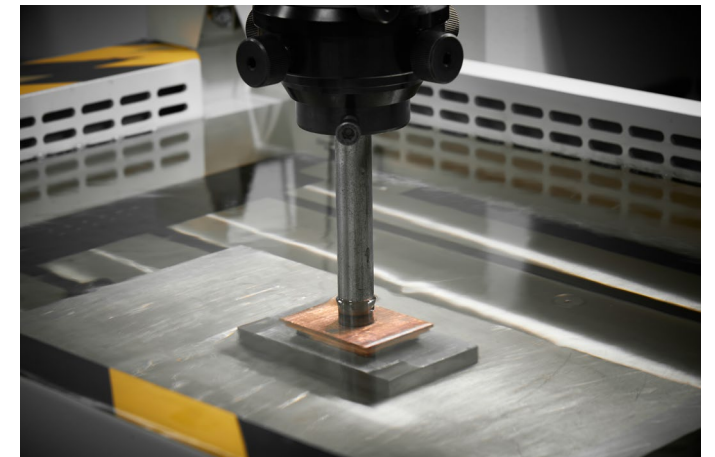


Lean manufacturing quality is the foothold for enterprise development. High- quality products are powerful weapons that set us high in the international market. First Mold seeks excellent inspection processes from material selection, designing, manufacturing, hand finishing to quality inspection. We strictly supervise every process to effectively guarantee products quality.



Workshop

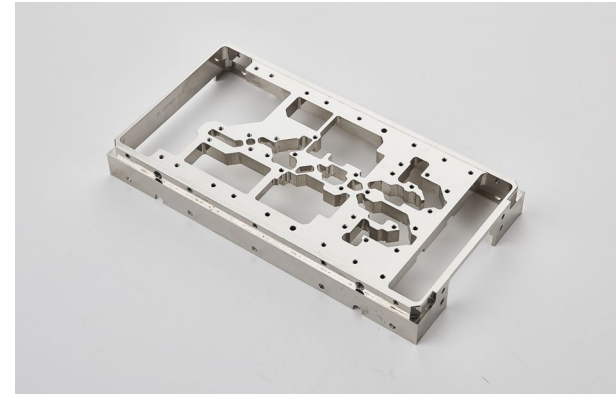




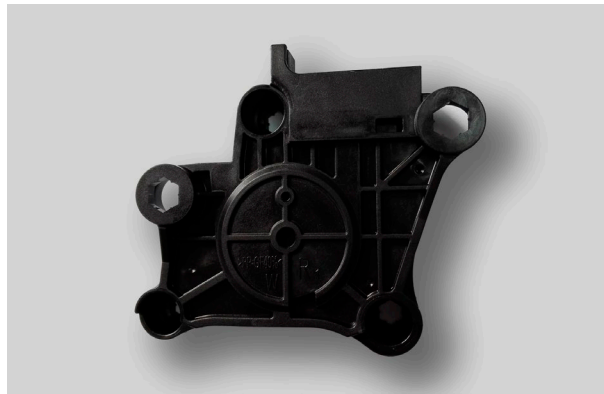
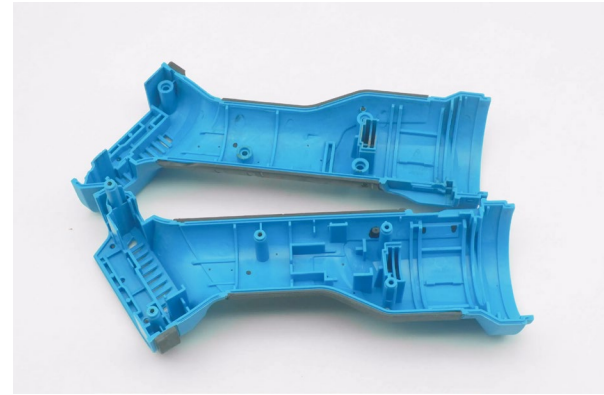
Part
Three

First Mold Products & Case Study

Product Gallery : CNC Machining



Product Gallery : Plastic Injection Molding



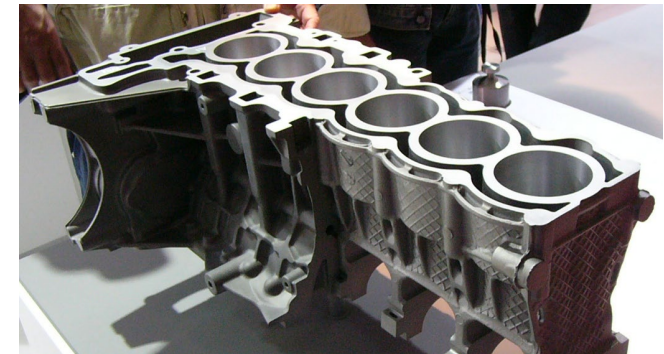
Sheet Metal



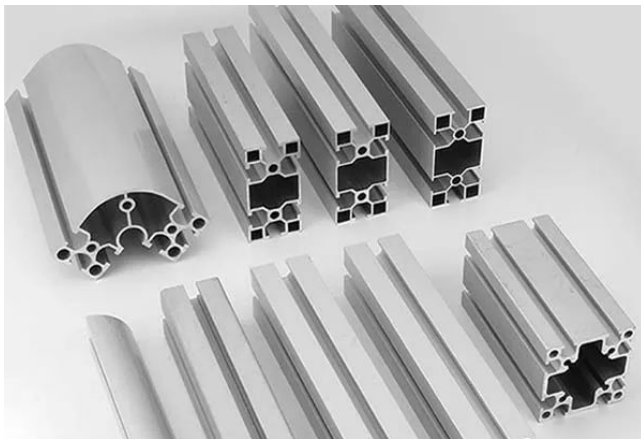
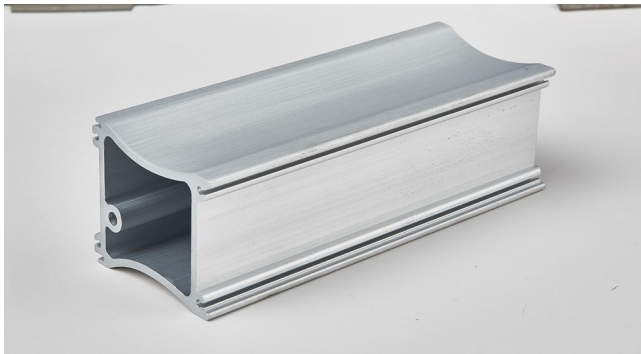
Vacuum Casting



Die Casting



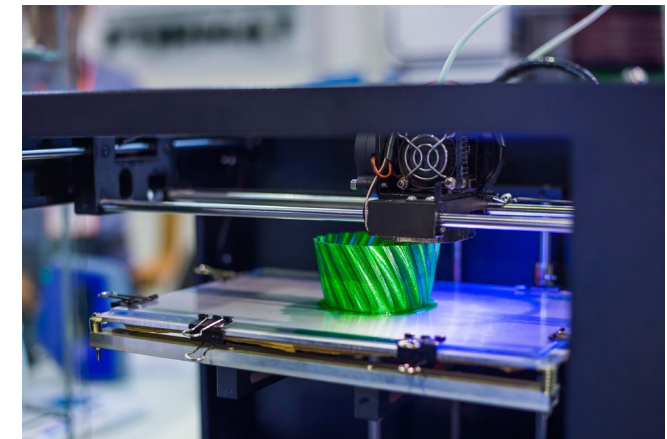
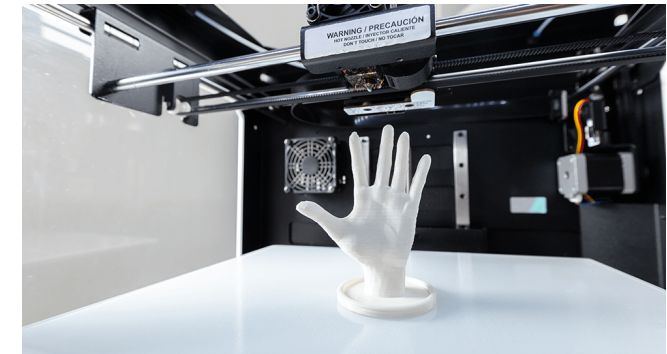
Aluminum Extrusion

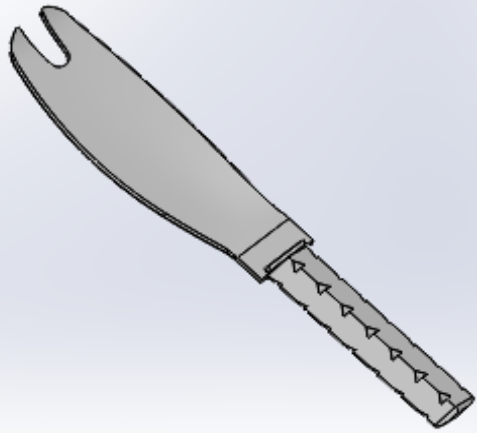


Finishing

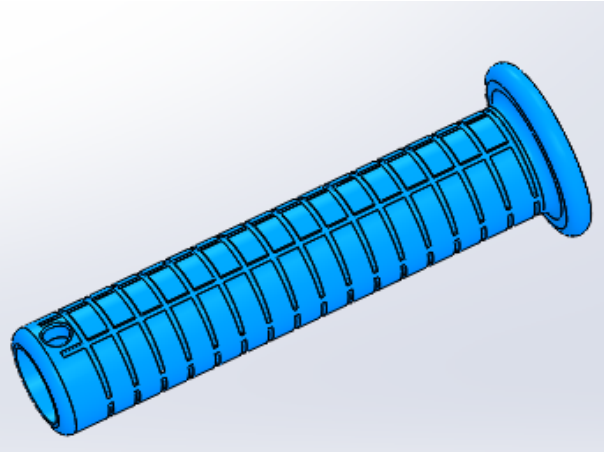


3D Printing





1. body part



2. Prototype



3. Tool metal

Material: 1050 steel

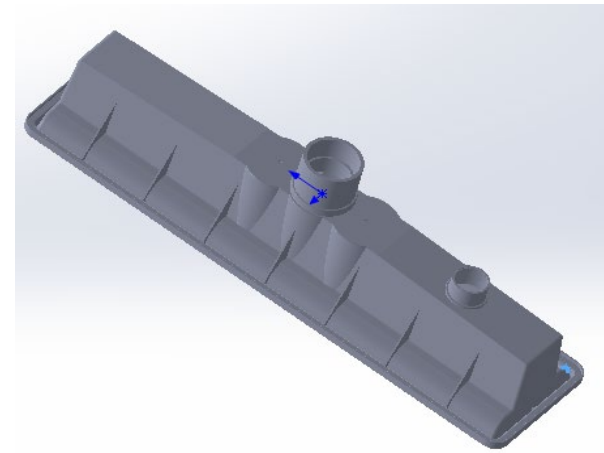
Mass: -

Process: CNC

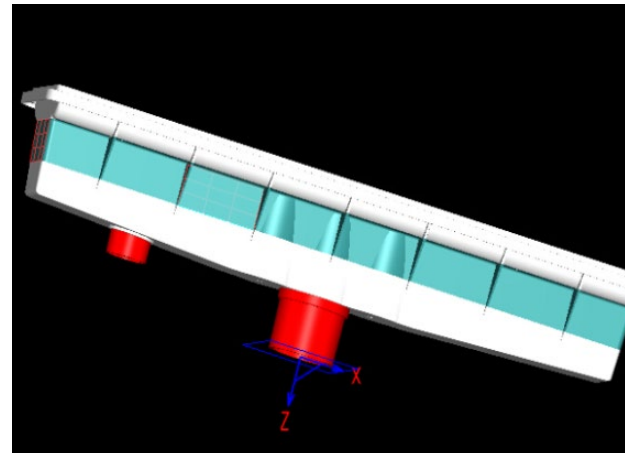
Challenge: The steel metal part need to be inserted into handle and need to be very good for strength use.

Size: -

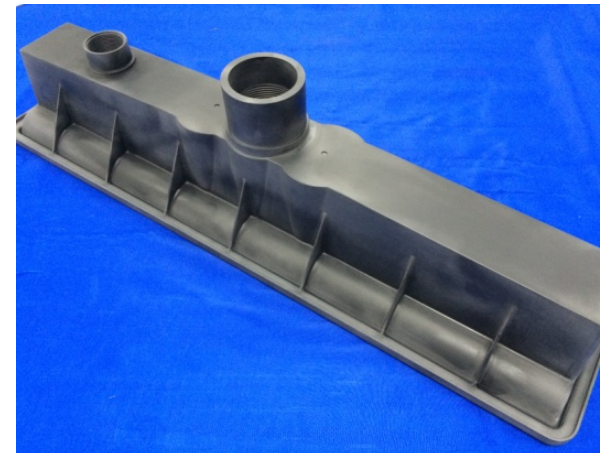
Solutions: We use some glue for a fixed and a better joint.



1. 3D Model



2. Section Plan



3. Prototype

Material: Black ABS

Mass: 1,770.4231 g

Process: CNC

Challenge: The part is large and we can't source this size of material stock for whole part machining.

Size: 220.43 x 208.41 x 843.75(mm)

Solutions: We section the part in 5 pieces and glue them together.

Step One

Product Presentation

Interior LED Lamp, which is made of plastic and aluminum for illuminating in car compartments, combines plastic molding and die casting. In here , we would like to introduce two representative components: Reflector and Lens.

At the beginning, our client arrived us to inquire his tooling products-LED Lamp, looking for 1K quantity for his marketing requirement. Our sales team quoted back to him in 12 hours which is our standard time for production tooling quote. For rapid tooling with simple structure, we can cut down to 6 hours or even shorter which saves our customers a lot of waiting time that allows them to win more time for assessing.



After a good quick communication, we confirm the material of LG CHEM LUPOY RF3208 solid white and Bayer Makrolon PC2647 clear to go for the job. **The RF3208 material has a good transparency to be the LED lamp accompany with the high temperature and wear resistance feature as well.** Both of the material choosing are materials are chosen] basing on client's purpose of design and suggestions from FP's CAD engineers.

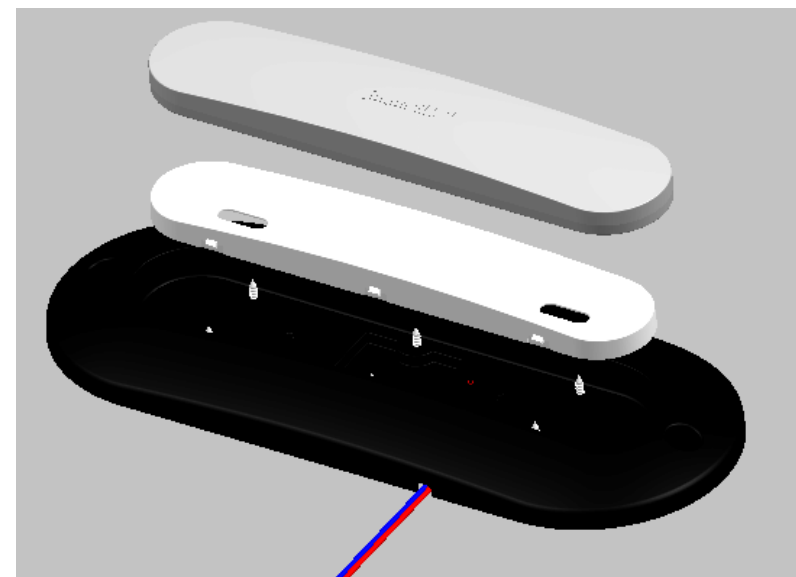
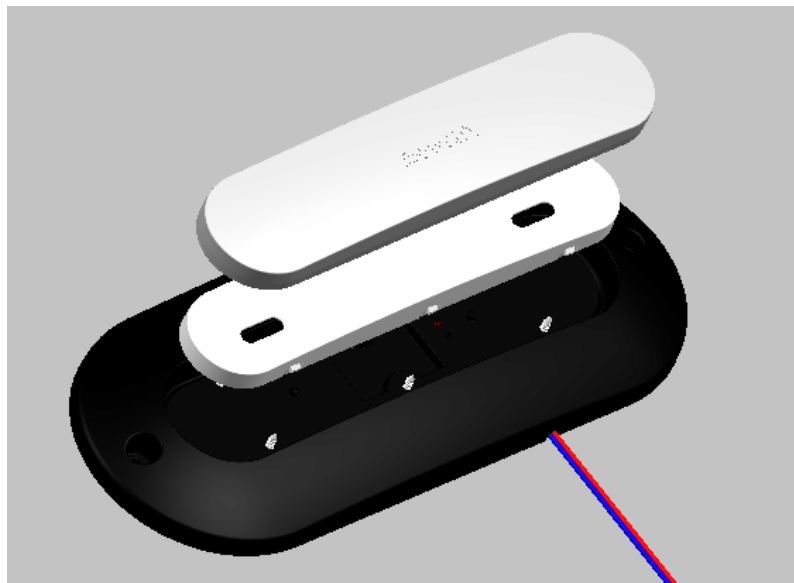
And next , we move forward to the DFM communication step.

Step Two

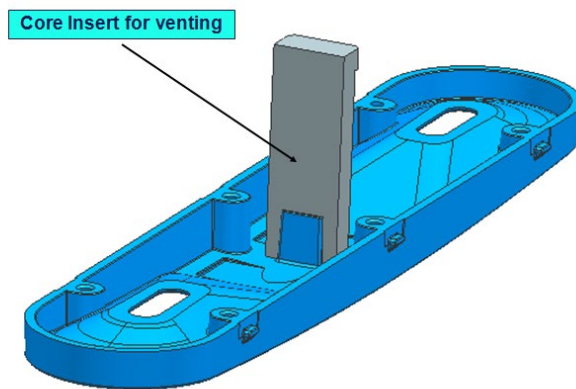
DFM Design

Typical DFM are done in 1 to 2 days, after reviewing the 3D model, we began to make the DFM to client to show the design scheme. Basing on this, would be the tooling design. Here are some images to show the process.

3D Model:

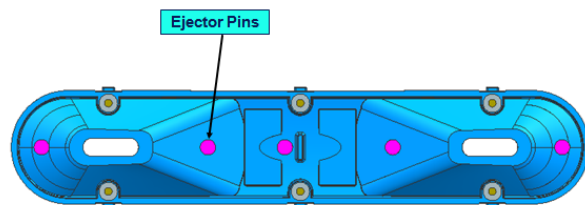


DFM: (Reflector Part)



Plastic Tooling DFM

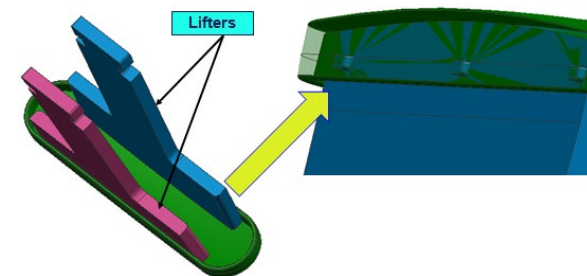
Reflector



Plastic Tooling DFM

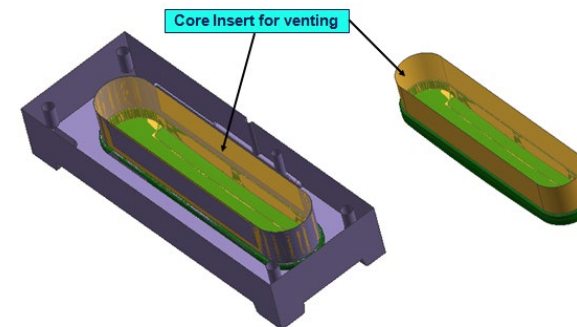
DFM: (Lens)

Lens



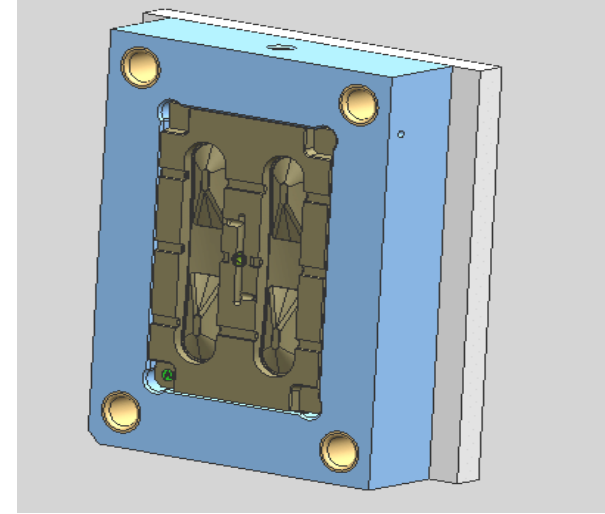
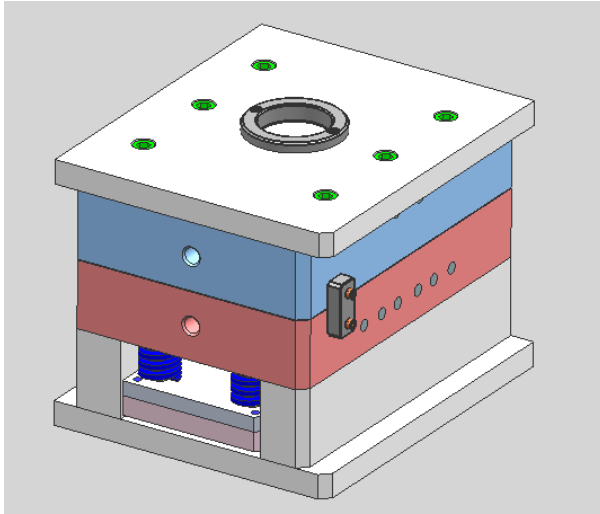
Plastic Tooling DFM

Lens

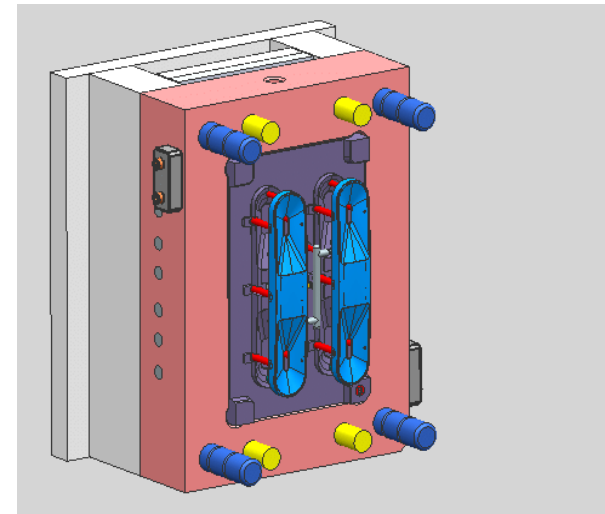
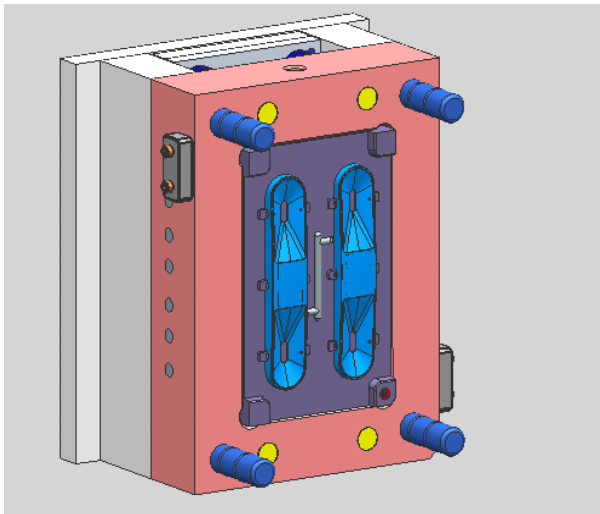


Plastic Tooling DFM

Case Study: Interior LED Lamp

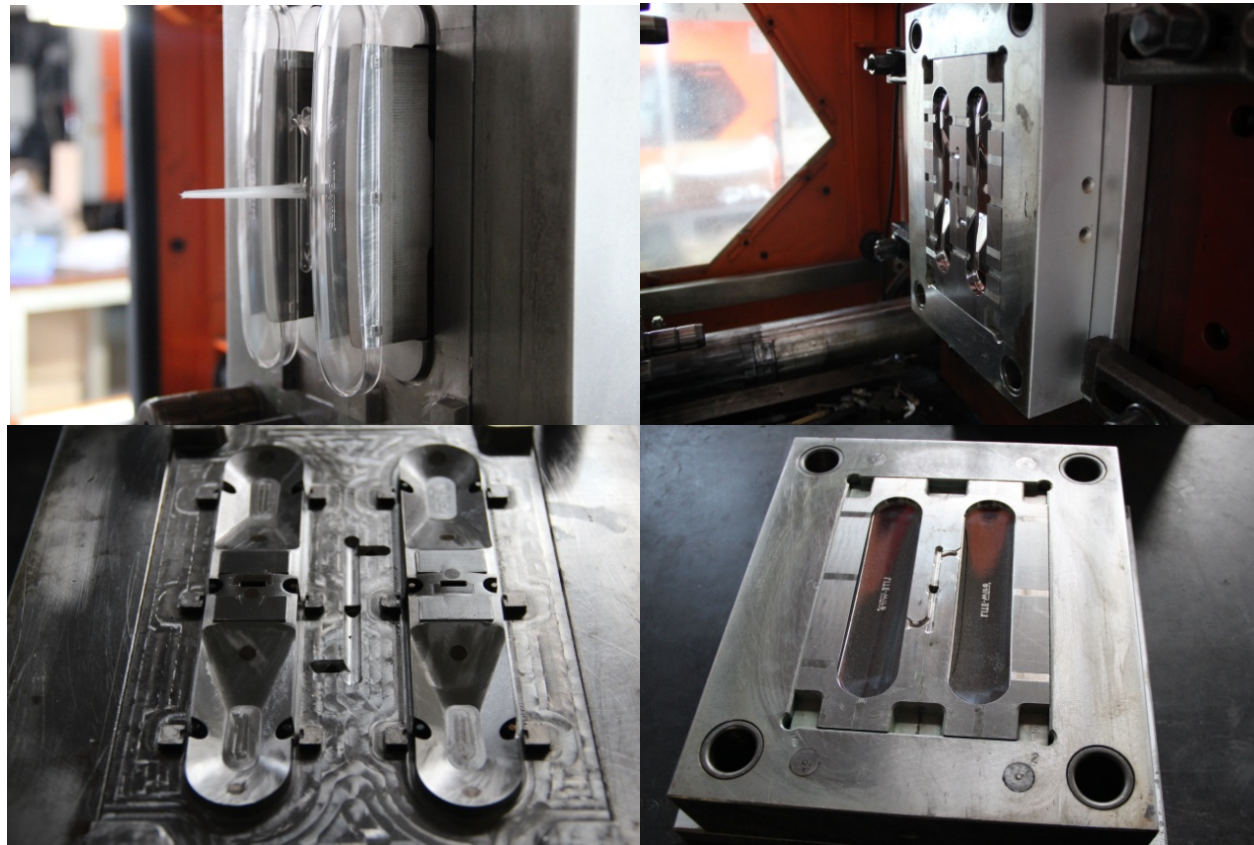


Tooling design



Step Three

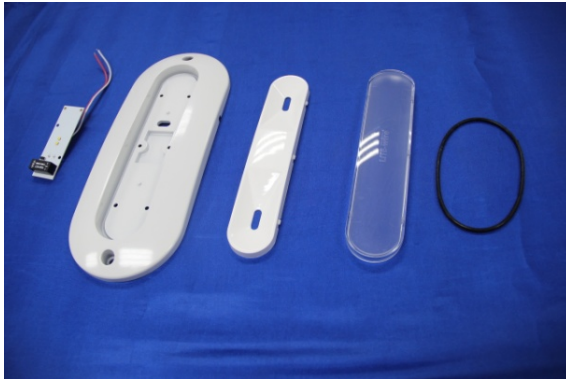
During the process, we had parts injected and tested, and had the tooling modified accordingly to make the high quality parts.



Step Four:

Below, we are going to show you the assembly:

1. Accessory parts



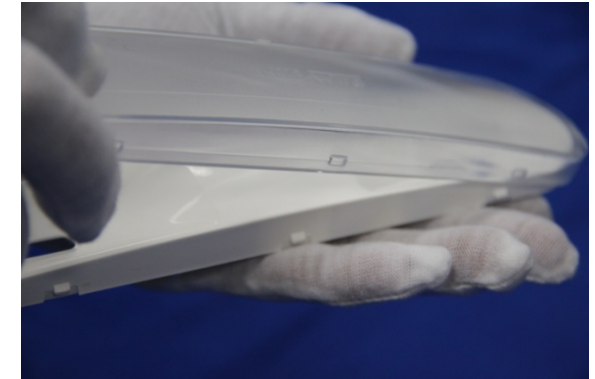
2. install the o ring



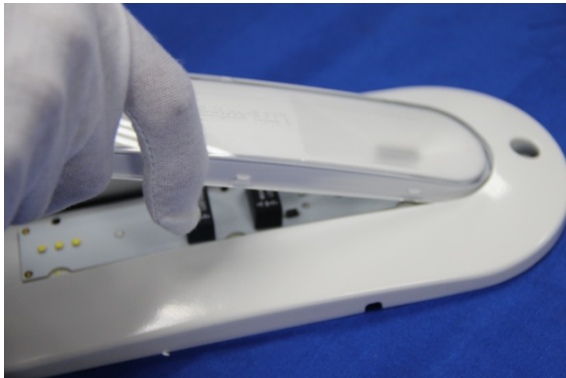
3. Install the PCB



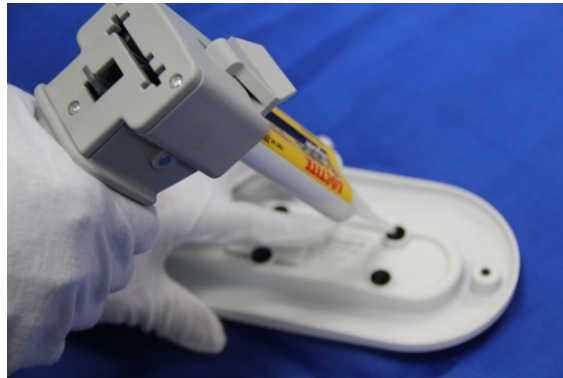
4. Assemble the light-cup



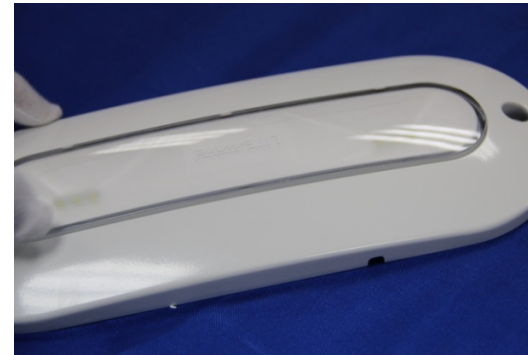
5. Light-cup install



6. Gluing



7. Finish



Step Five

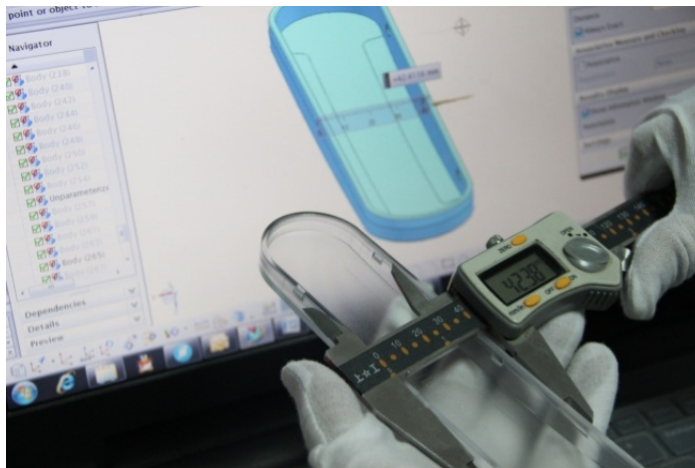
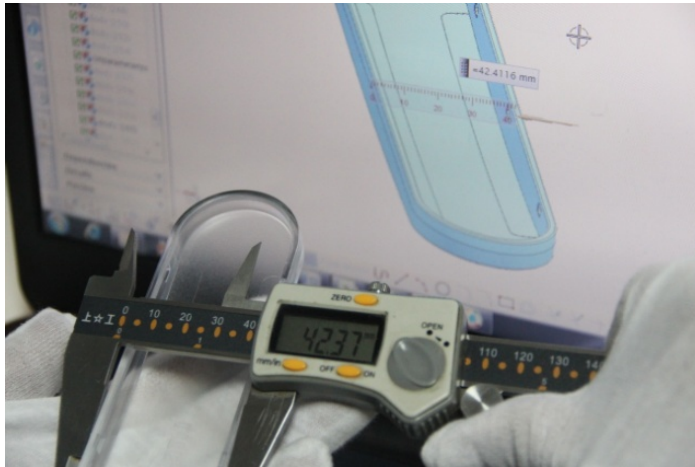
Our QC department is our proud to be the golden supplier. All of the parts are under inspected to be perfect. Checking every detail from 3D model, ensure all the dimensions are in tolerance of the sizes. Our checking includes a series of running-dimensions, lighting, sealing test and so on.

Sealing test:



Case Study: Interior LED Lamp

Inspect the dimensions:



Lighting test:





First Mold
Marketing

Part
Four

Marketing Network

Currently, First Mold focus on the global market. We have built up long-term partnership with enterprises from all over the world, relying on the high quality, technology advantage and the after-sales systems. Our goal is always growing and to be stronger together with global clients.



North America
Market

South America
Market

Africa Market

Europe Market

First Mold
Location

Asia Market

Oceania Market

Automotive



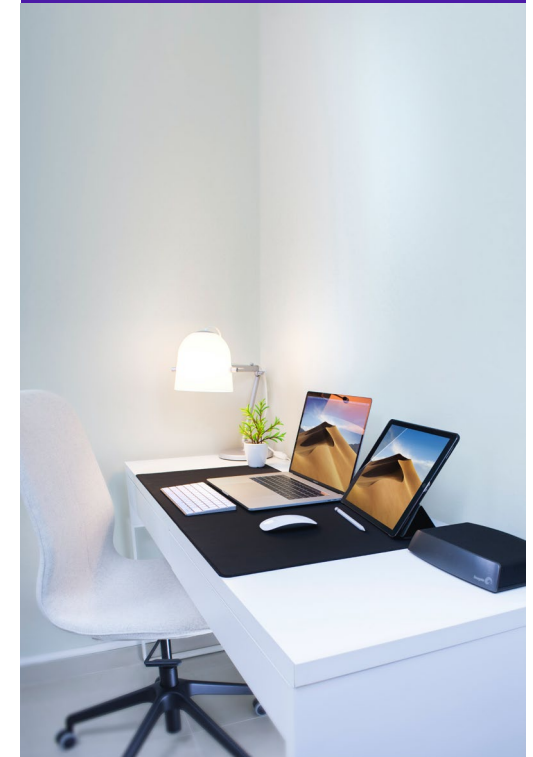
Aerospace



Medical Devices



Consumer Electronics



In addition to the above industries
our products are used in many more fields

Cooperation Case



PORSCHE

DIAGEO



la marzocco
handmade in florence

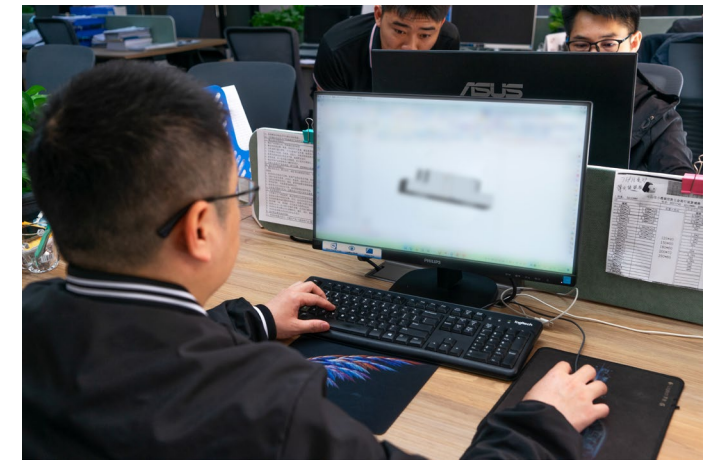


Part
Five

First Mold Gallery



Sales Office



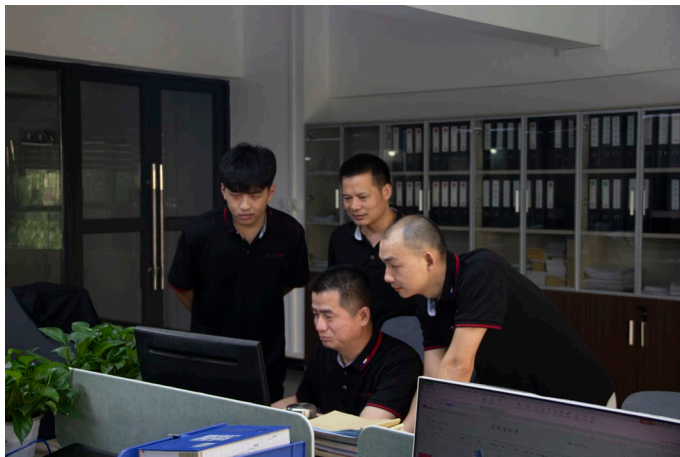
Designer Office



Meeting Room



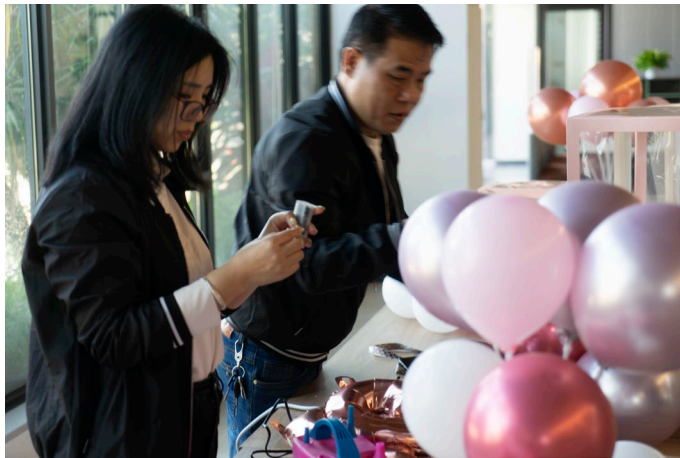
Entertainment



Discussing



First Mold Group



First Your Need, Mold Your Part



Thank You!

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www.firstmold.com
+86-18928167001

— 2022 —

