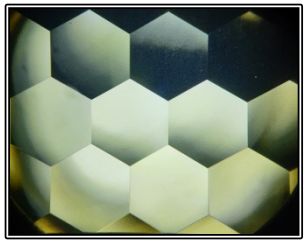
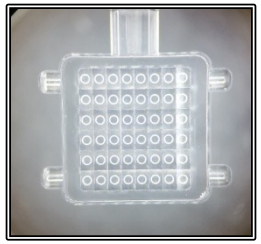
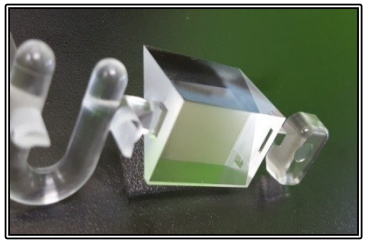
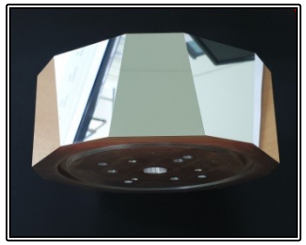
LUMITEC

Company Introduction

proposal by lumitec

Company Overview

About The Company

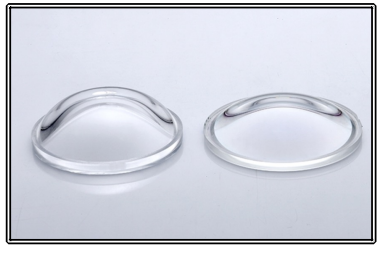
루미텍은 2014년 설립되어 초정밀 가공기의 DTM(Diamond Turning Machine) 가공을 기반으로 초정밀 광학부품 제작 및 초정밀 광학금형 제작 / 사출생산까지 전 공정을 ONE STOP으로 처리하는 토탈 솔루션 초정밀 광학 기업입니다.

저희 루미텍은 User Experience과 고객 만족도를 높이기 위한 출발점으로 시뮬레이션 기술 토대로 최강의 가공기술을 사용하여 자유곡면/비구면 렌즈, MLA(Micro Lens Aarray), 차량용 스마트 헤드라이트의 마이크로패턴, HUD/HMD 의 자유곡면 PRISM 등 고도의 초정밀 금형 제작 솔루션 및 사출 생산 솔루션을 제공합니다.

Technology

- Freeform Technology

- MLA Technology



Company Location

C.E.O	Bong Ju,Lee	Mail	lumitec@chol.com	Sales	Kim In Chan	Hp	010-4756-0312

Tel	+82.31.682.4620	Fax	+82.31.682.4621

Address 25, Deurimsandan 7-ro, Cheongbuk-myeon, Pyeongtaek-si, Gyeonggi-do, Republic of Korea

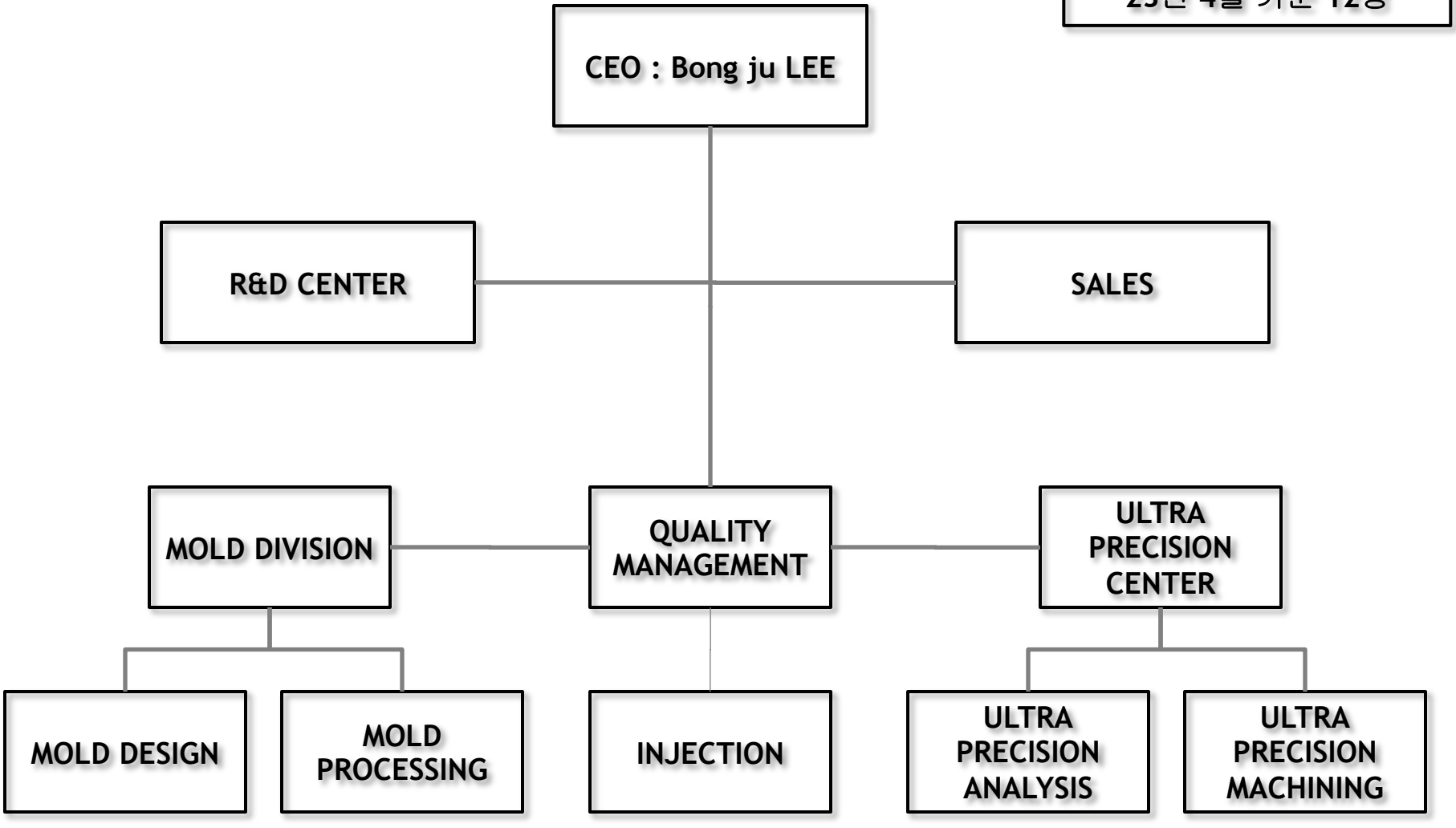
Company History

2014.08	루미텍 설립
2014.11	충남디스플레이센터 입주
2015.04	벤처기업 인증
2016.02	한국생산기술연구원 파트너기업 선정
2016.03	연구전담부서 설립
2016.04	클린사업장 인증
2016.04	도시바 ULG-100D HYB 설비 도입
2016.09	위험성평가 인정
2016.12	노출수준저감 TOP3 인정
2017.07	ISO 9001/14001 인증
2018.04	YASDA YMC650 설비 도입
2018.04	PRECITECH NANOFORM X 설비도입
2019.06	Fast Tool Servo FTS-5000 설비도입

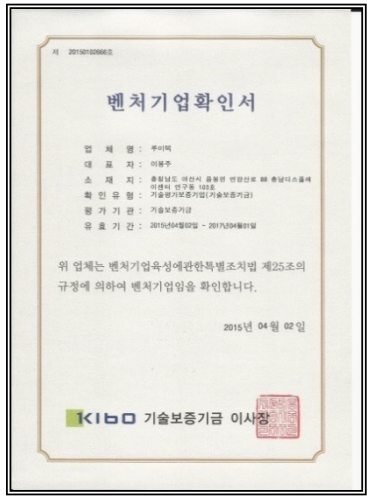
2019.03	신사옥 부지 매입
2021.05	신사옥 이전 완료
2021.06	Sumitomo 30톤 사출기 2대 도입
2021.10	Sumitomo 180톤 사출기 1대 도입
2021.12	Sumitomo 50톤 사출기 2대 도입
2022.03	PRECITECH DTM 설비 3대 도입
2022.03	YASDA YMC430 설비 도입
2022.09	MITUTOYO 3차원 측정기 도입

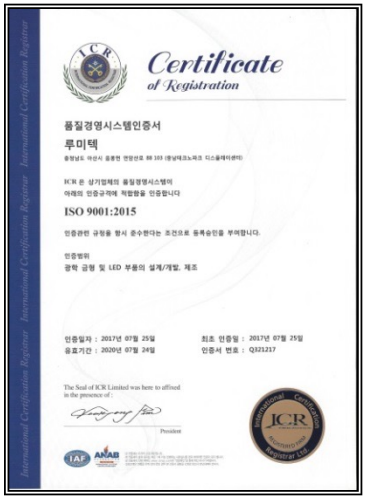
Company Organization

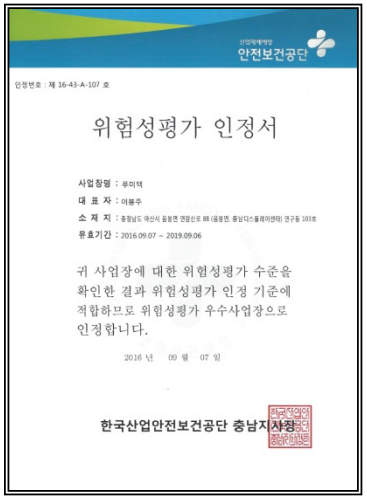
23년 4월 기준 12명



Company Certificate





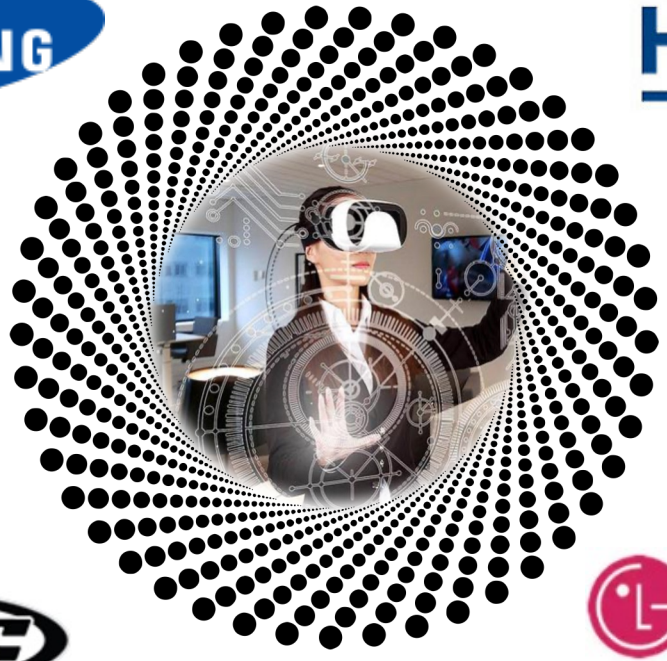


Main Customers

LG

SAMSUNG

HYUNDAI MOTOR GROUP



(주)아주광학 A-JU OPTICAL . CO., LTD.

NAVER LABS

MPNICS

KOPTI 한국광기술원

LG Innotek

HJC HELMETS

KITECH 한국생산기술연구원

Annual Sales

단위 : 백만원

2018년	2019년	2020년	2021년	2022년
1,714	1,667	1,721	1,412	1,911

Product Ability

Mold maker ability	Capacity	Delivery	Guarantee	Etc.
Mobile/cctv Mold	20set/M	3~4/W	500K	
Headlight Mold	4set/M	3W	300K	
Prism Mold	4set/M	3/W	200K	
HUD Mold	2set/M	4W	300K	Freeform type

Core machining ability	Capacity	Delivery	Guarantee	Etc.
Micro array Core	10ea/M	Case by case		
HUD Core	5ea/M	Case by case		Freeform type
Headlight core	50ea/M	Case by case		For glass molding
Cenented carbide Core	400ea/M	Case by case		SPH/ASPH type
Cenented carbide Core	10ea/M	Case by case		Anamorphic type

Injection ability	Capacity	Delivery	Guarantee	Etc.
Standar circle Lens	1,000k/M			
Headlight Lens	10k/M			
Prism Lens	20k/M			
HUD Lens	10k/M			

EQUIPMENT LIST

PartULG	Machine	Q'ty	제작사	비고
Diamond Turning Machine	Nanoform X	1	Precitech	Max : Φ400
	Nanoform 250	3	Precitech	
	ULG-100D(HYB)	1	Toshiba	Grinding / Cutting
High Speed Machine	UL+ (12000)	1	Hwacheon	
	UL+ (20000)	1	Hwacheon	
	MC430	1	Sodic	
	YMC430	1	Yasda	
	YMC650	1	Yasda	
Injection Molding Machine	SE30DUZ C50 (30t)	2	Sumitomo	
	SE30DUZ C75 (50t)	2	Sumitomo	
	SE180EV C450 (180t)	1	Sumitomo	
Measuring Instrument	FTS 840	1	Taylor Hobson	접촉식비구면측정
	PGI 1500S	1	Taylor Hobson	접촉식비구면측정
	MF-B2010D	1	Mitutoyo	공구현미경
	CRYATA-Apex V574	1	Mitutoyo	3차원 측정기

Technology possesed

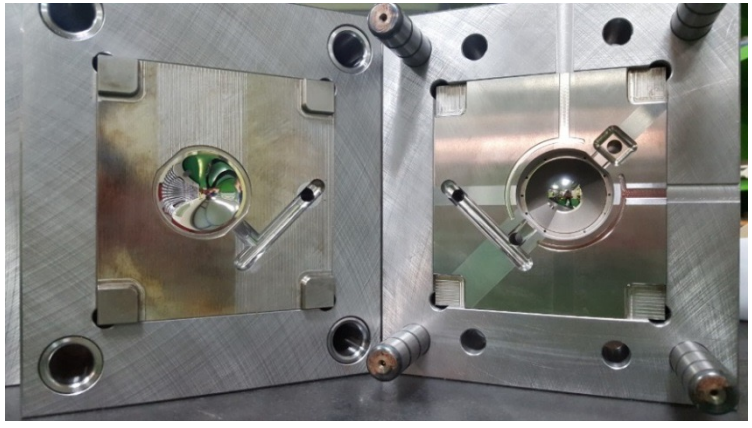
1. CAR HEADLIGHT LENS
2. HMD / HUD FREE FORM LENS
3. MICRO LENS ARRAY
4. GLASS MOLDING LENS
5. LED LENS TOTAL SOLUTION
6. FRESNEL LENS
7. MOBILE / CCTV LENS
8. SPECIAL MATRIAL PROCESSING

CAR HEADLIGHT LENS MOLD PROCESSING

Application




Ultra Precision Mold Processing



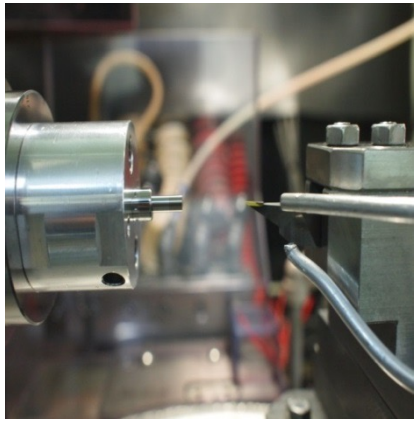
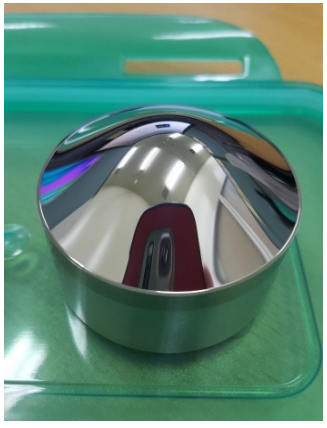
▶MOLD : SKD/SLD/55C

▶CORE : STAVAX

▶TOLERANCE : 0.001mm ~ 0.010mm

▶**Remarks** : - Ultra-precision high-speed machining
- cooling temperature controller
- Ultra-fine corrosion application

Ultra Precision DTM Processing

▶TOOL : DIAMOND BITE

▶COATING : NI-P

▶Form Accuracy : 5.0um under

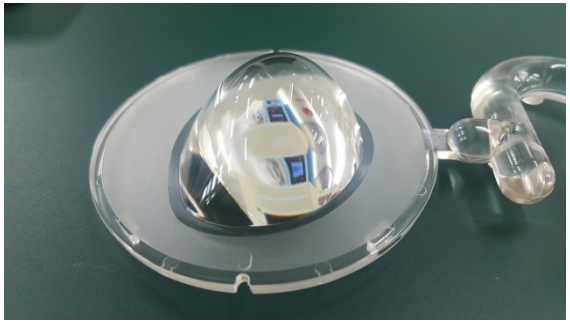
▶Surface Roughness : 5nm

CAR HEADLIGHT LENS MOLD PROCESSING

Application




Ultra Precision Injection Molding



▣ FREEFORM LENS

▶OUT-SIDE : Φ65

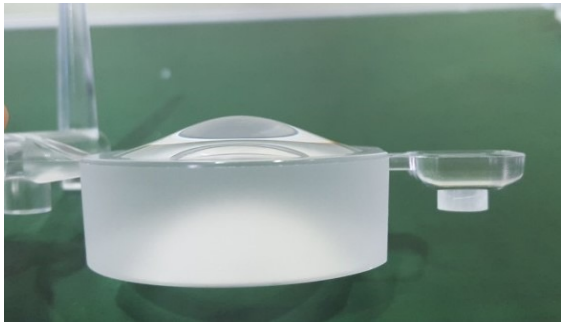
▶C-THICKNESS : 23.0mm

▶F-THICKNESS : 3.0mm

▶CYCLE TIME : 8M

▶COOLING TIME : 6M

▶S1 formerror : 20um
▶S2 formerror : 10um



▣ ASPHERICAL LENS

▶OUT-SIDE : Φ52

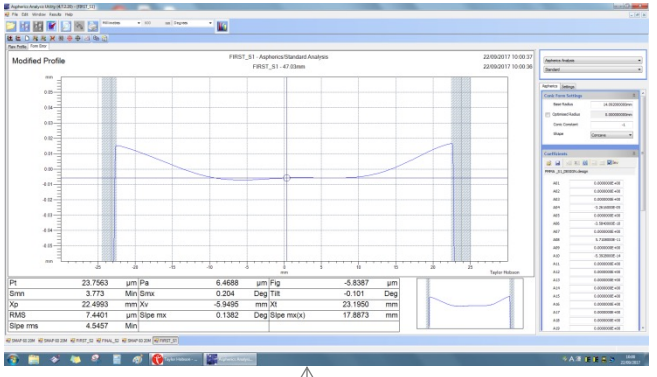
▶C-THICKNESS : 17.0mm

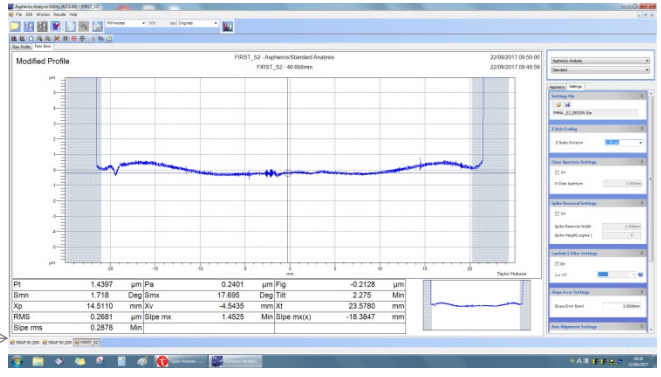
▶F-THICKNESS : 19.0mm

▶CYCLE TIME : 19M

▶COOLING TIME : 16M

▶S1 formerror : 23.7um
▶S2 formerror : 1.5um



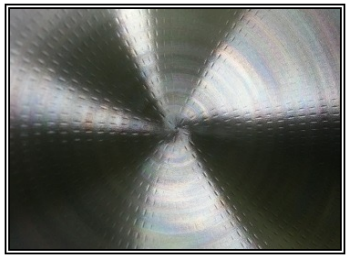
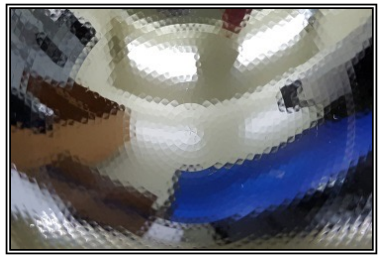
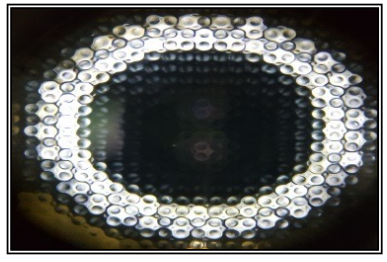


Application

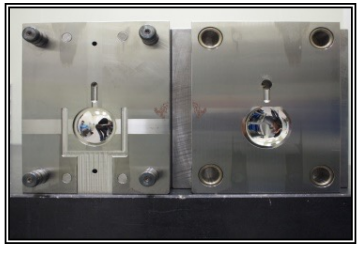


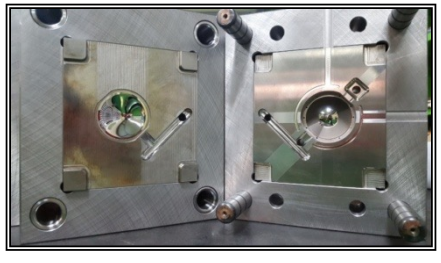

CAR HEADLIGHT LENS PATTERN

Pattern

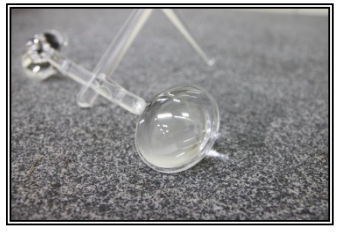




Mold & Core





Mock up & Product

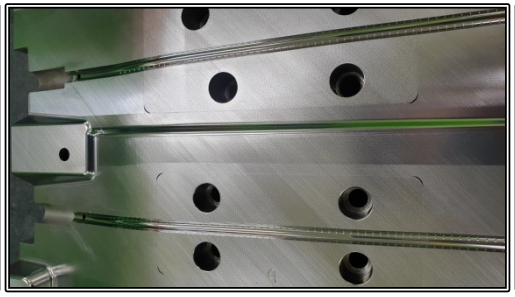
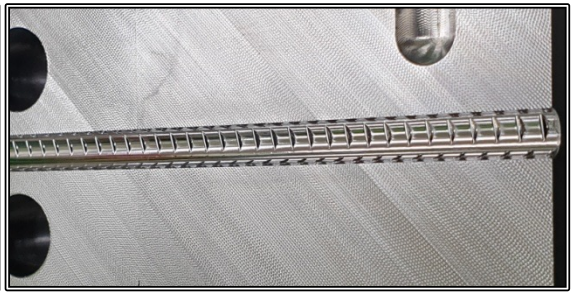


Application

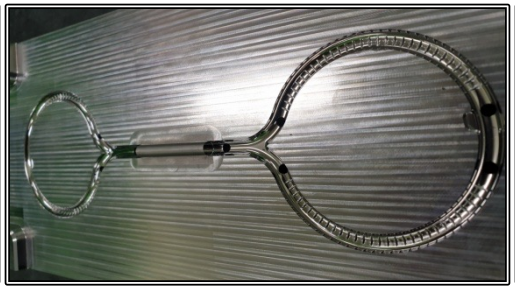



CAR LIGHT GUIDE PATTERN MOLD

STRAIGHT

CURVE

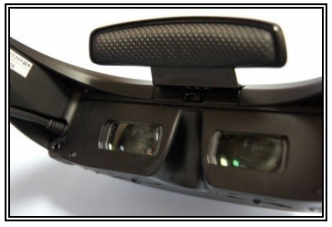




▶ CORE : STAVAX

▶ PATTERN Minimum R : R 0.05

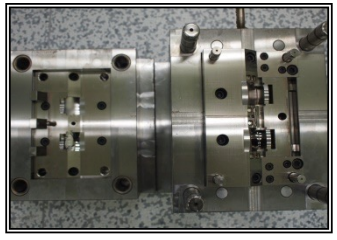
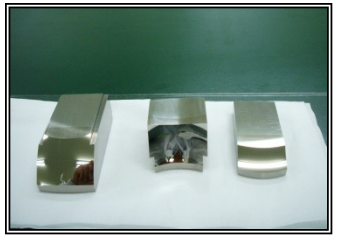
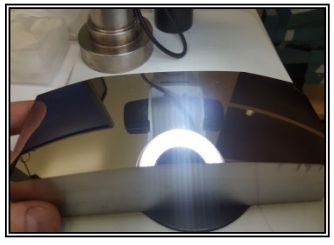
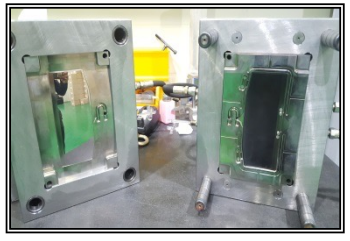
▶ ROUGHNESS : 20~30nm

Application

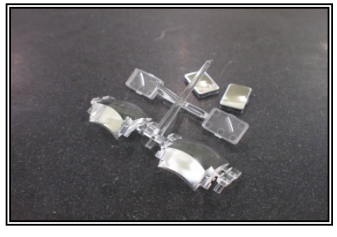



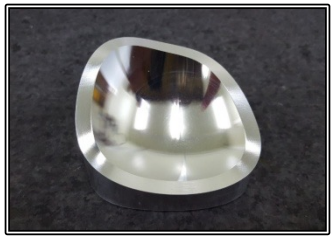
HMD
HUD
FREE FORM
LENS

Mold & Core

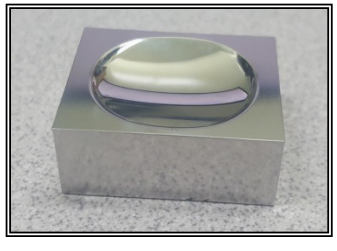





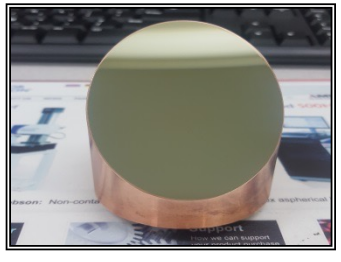
Mock up & Product



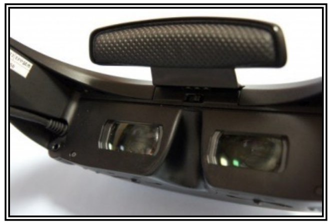
Polishing



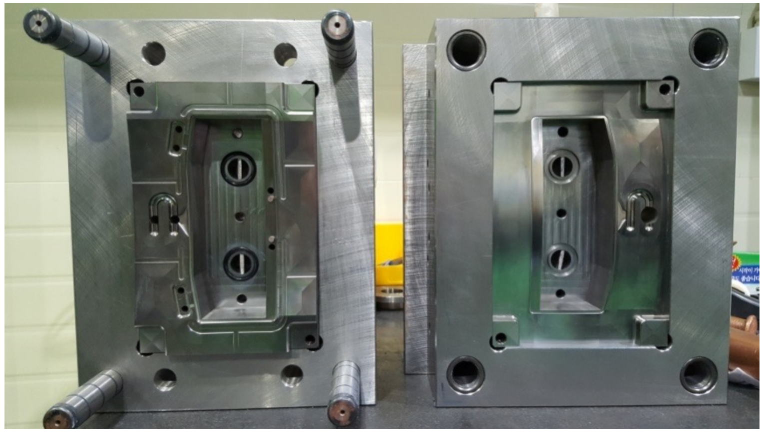



HUD LENS MOLD PROCESSING

Application

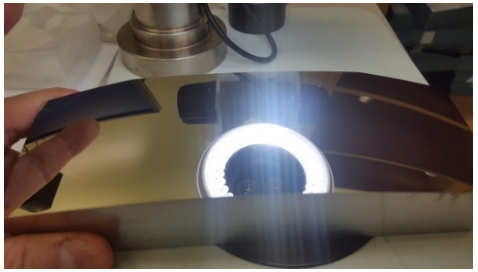



Ultra Precision Mold Processing



- ▶MOLD : SKD/SLD/55C
- ▶CORE : STAVAX
- ▶TOLERANCE : 0.005mm
- ▶Remarks :- ultra-precision high-speed machining
  - cooling temperature controller
  - Core cooling method applied

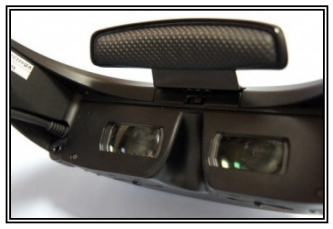
Ultra Precision DTM Processing

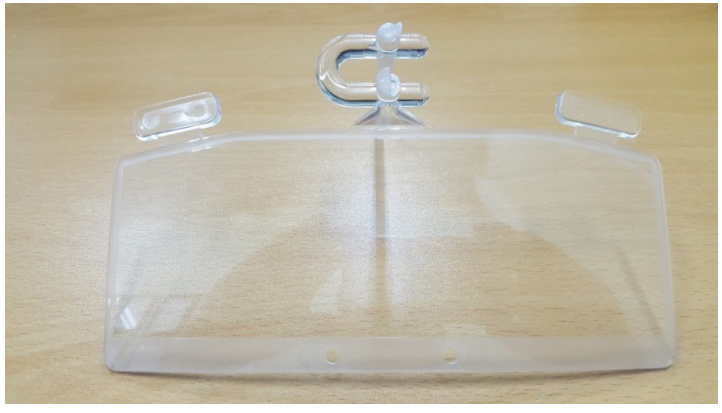

- ▶TOOL : DIAMOND BITE
- ▶COATING : NI-P
- ▶TOLERANCE : 0.5um
- ▶Remarks : Precision polishing after DTM processing

HUD LENS MOLD PROCESSING

Application

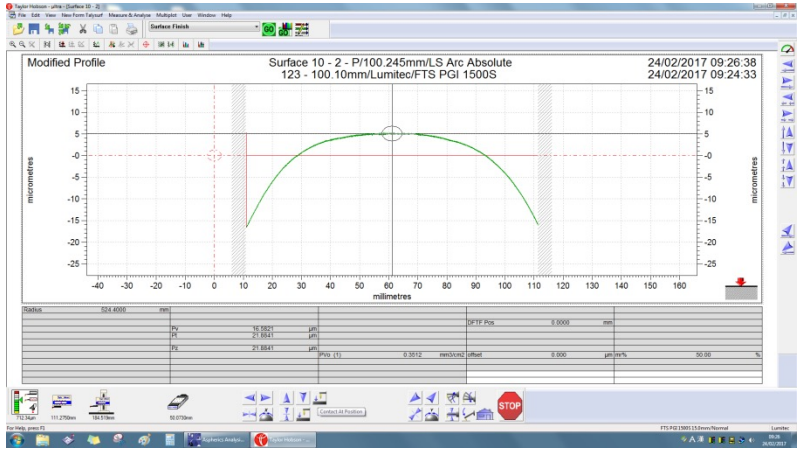



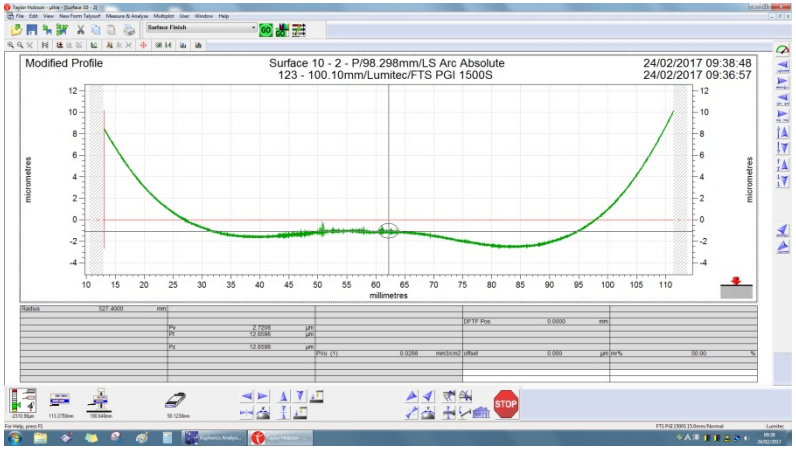
Ultra Precision Injection Molding



- OUT-SIDE : 185X80
- THICKNESS : 3.0mm
- CYCLE TIME : 5M
- COOLING TIME : 4M
- S1 formerror : 23um
- S2 formerror : 12um

Ultra Precision Evaluation



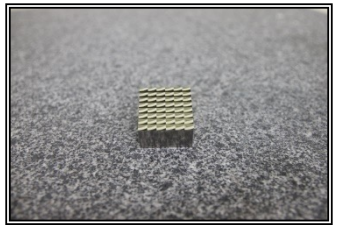
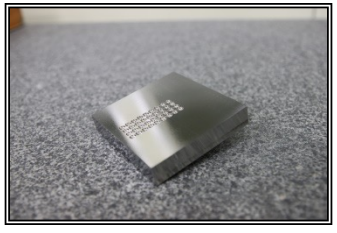
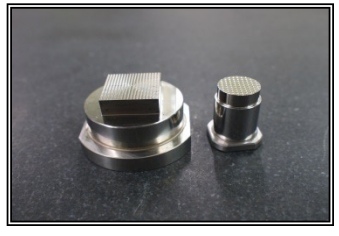
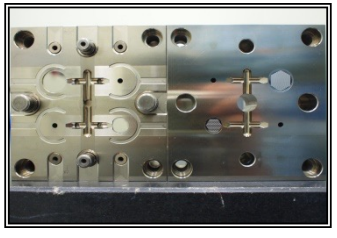


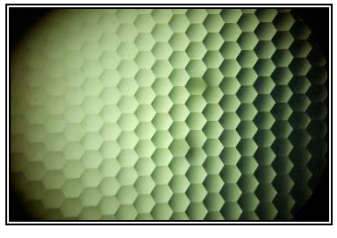
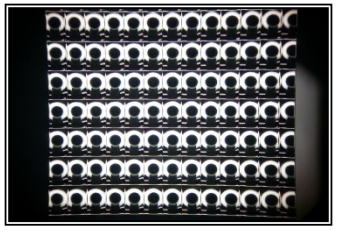
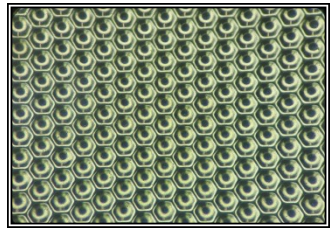
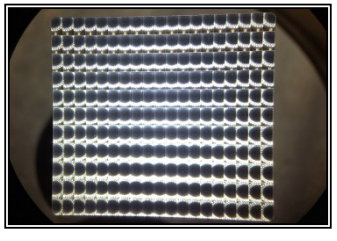
Application



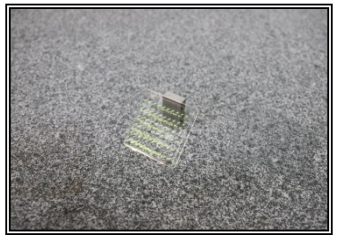
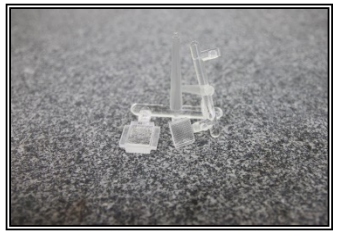
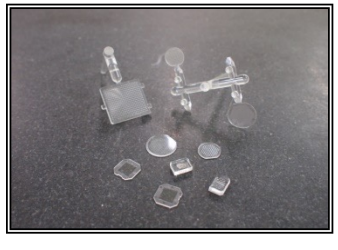
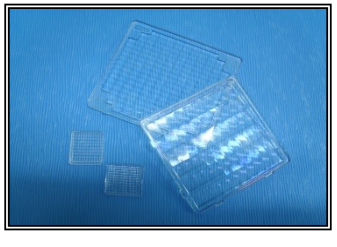

MICRO LENS ARRAY

Mold & Core

Mock up & Product

Fast Tool Servo

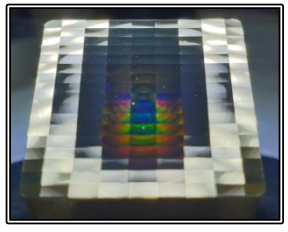
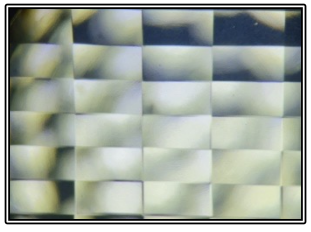
FTS-5000

MICRO ARRAY

Application

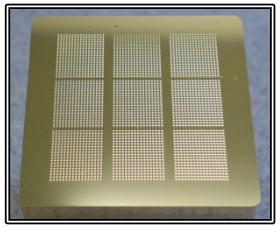
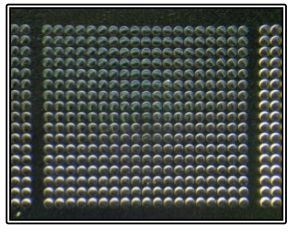



Square array

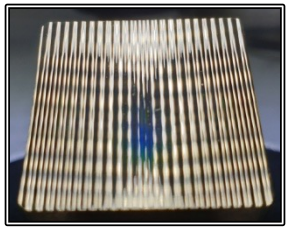
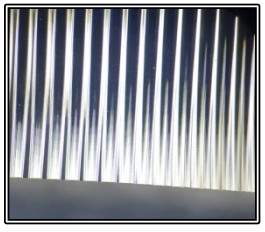
Pitch : X 1.0mm Y 0.5mm
Depth : 0.02mm

Holomicroscopic array

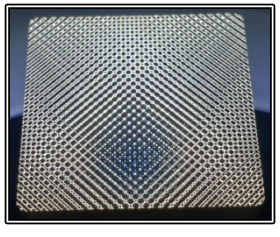
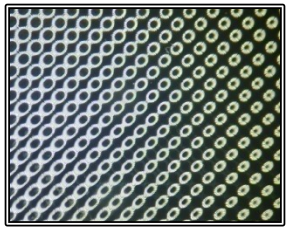
Pitch :0.315mm Φ :0.315mm
Depth : 0.01mm

Single sine wave array

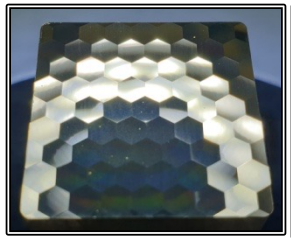
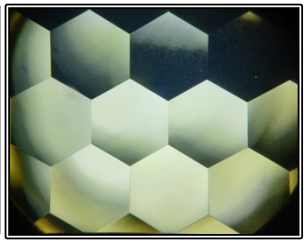
Pitch : 1.0mm
WIDE : 0.02mm

Cross sine wave array

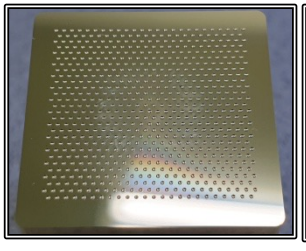
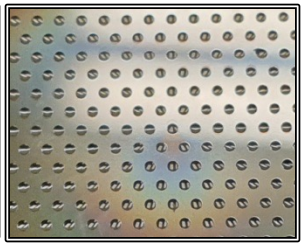
Pitch : X 1.0mm Y 1.0mm
WIDE : 0.02mm

Hive array

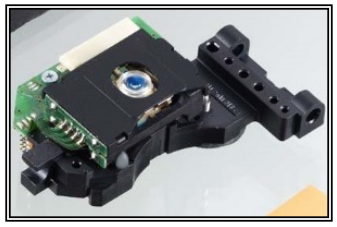
Pitch : 0.4mm
Depth : 0.01mm

Multi asymmetry array

Φ :0.315mm
Depth : 0.01mm

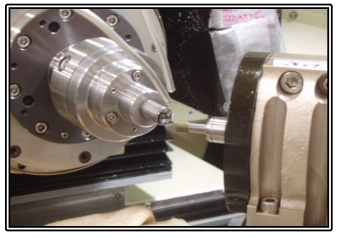
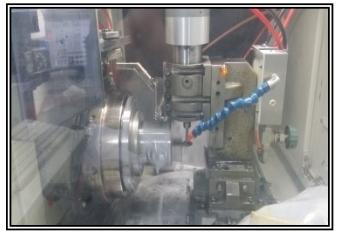
Application

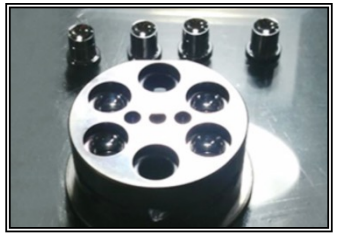
GLASS MOLDING LENS

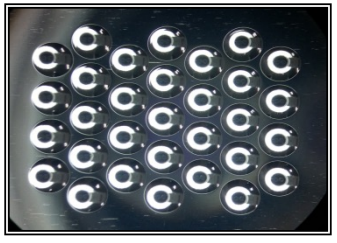
GRINDING PROCESS

Grinding & Polishing

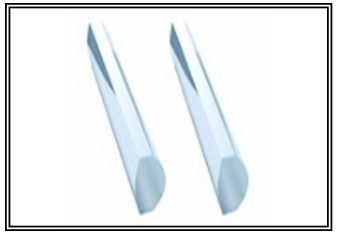
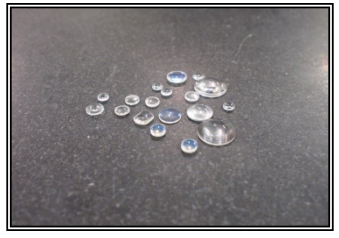
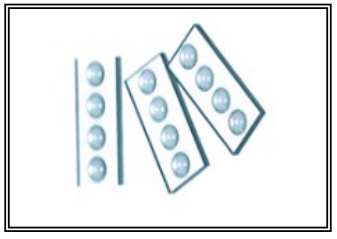




Mold & Core

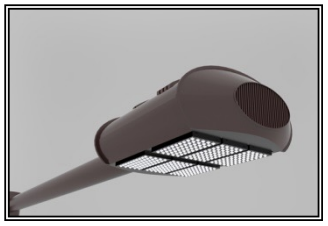
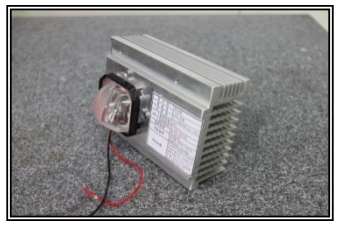


Mock up & Product

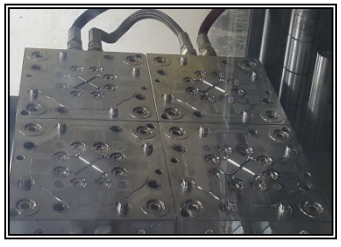
Application

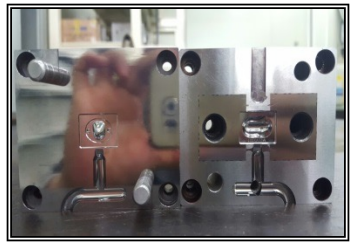
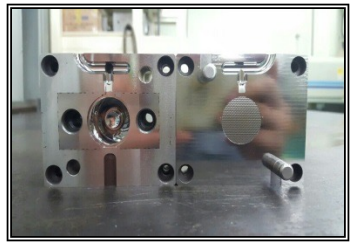



LED LENS

TOTAL SOLUTION

Mold

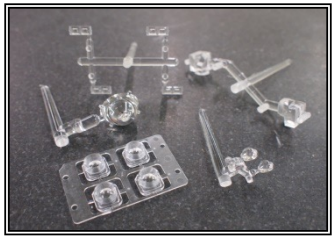
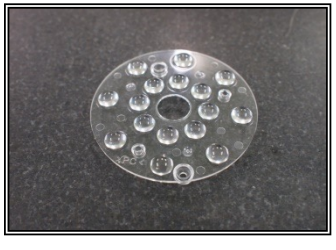


Core




Mock up & Product

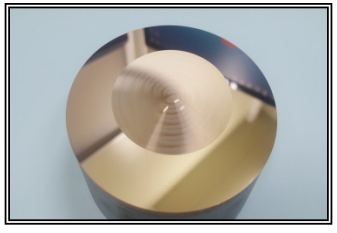
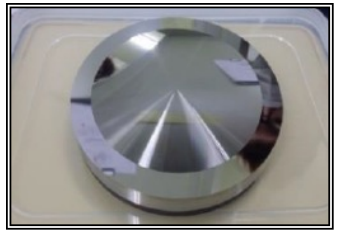
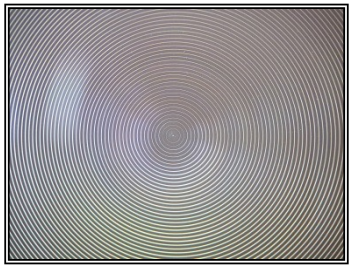
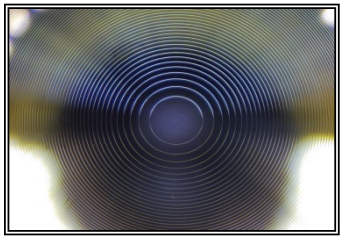



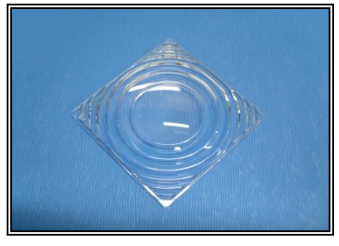
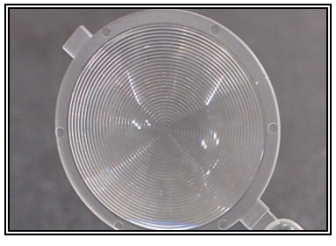
FRESNEL LENS

Application

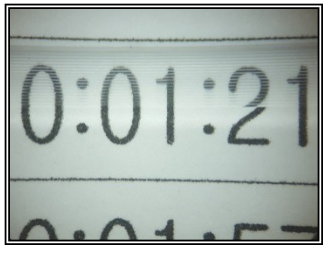


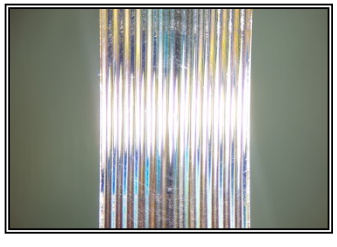
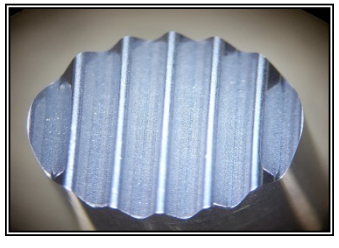
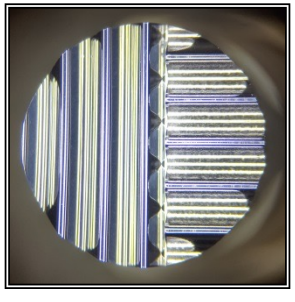

Mold & Core

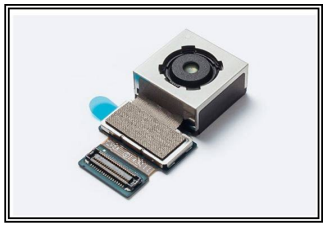




Line Fresnel



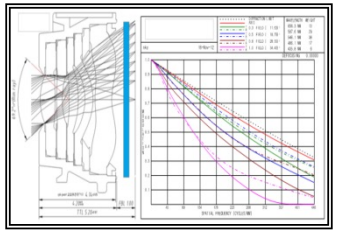
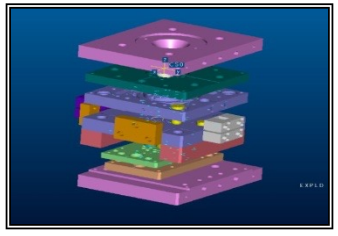




Application

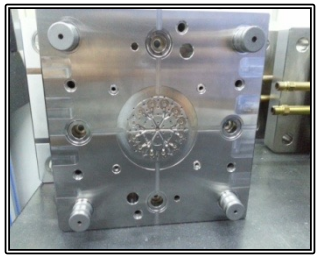
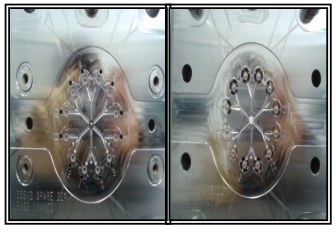



MOBILE CCTV LENS

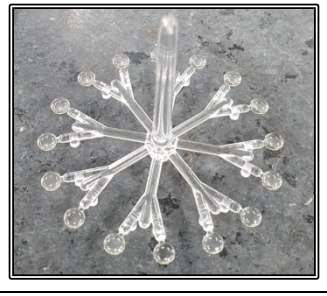
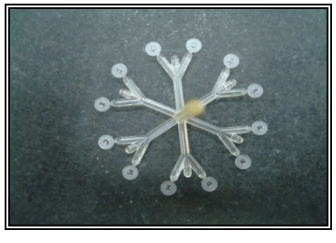
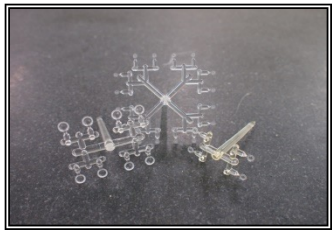
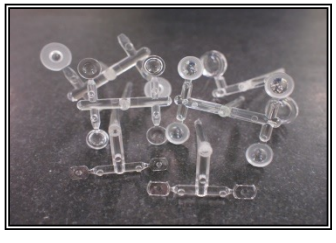
Design & Modelling


Mold & Core

Mock up & Product

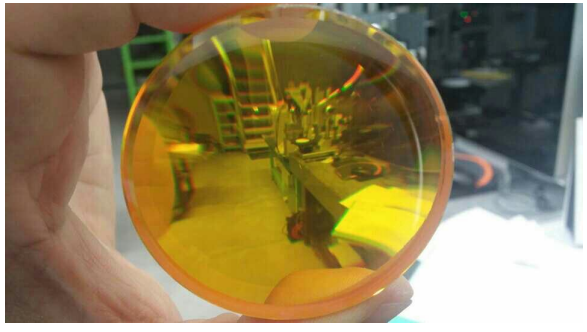





Application

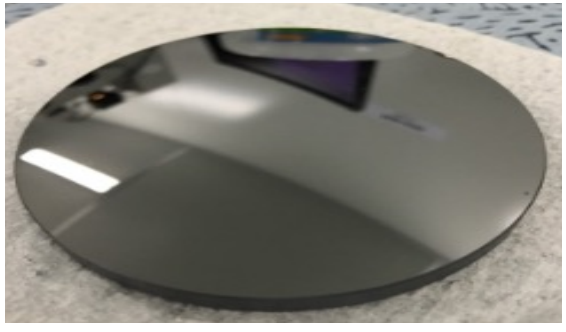



SPECIAL MATRIAL PROCESSING

Matrial : ZnSe



Matrial : Germanium



Matrial : Silicon

Matrial : Aluminum

Matrial : Cupper

Matrial : Molybdenum