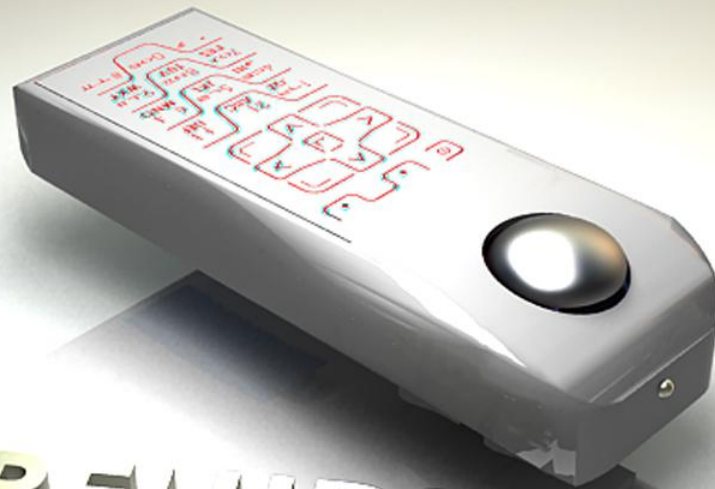


4 Kwanak Precision

관악정밀



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● Application Program Goals

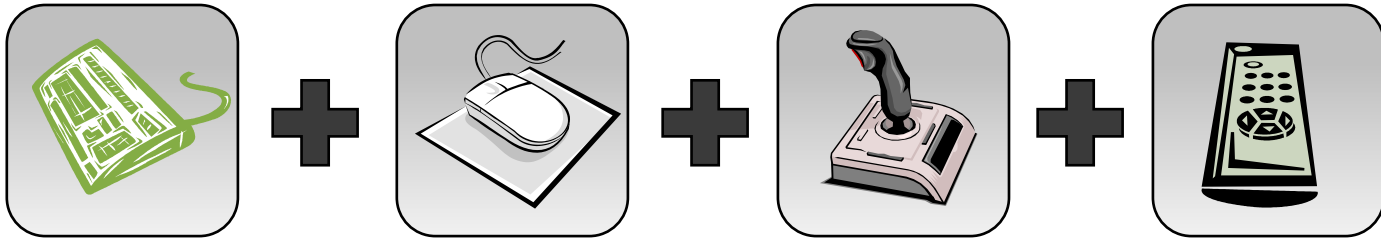


Scenario

Concept & Our Goals



Concept



=

"Multi Functional"
Remote controller

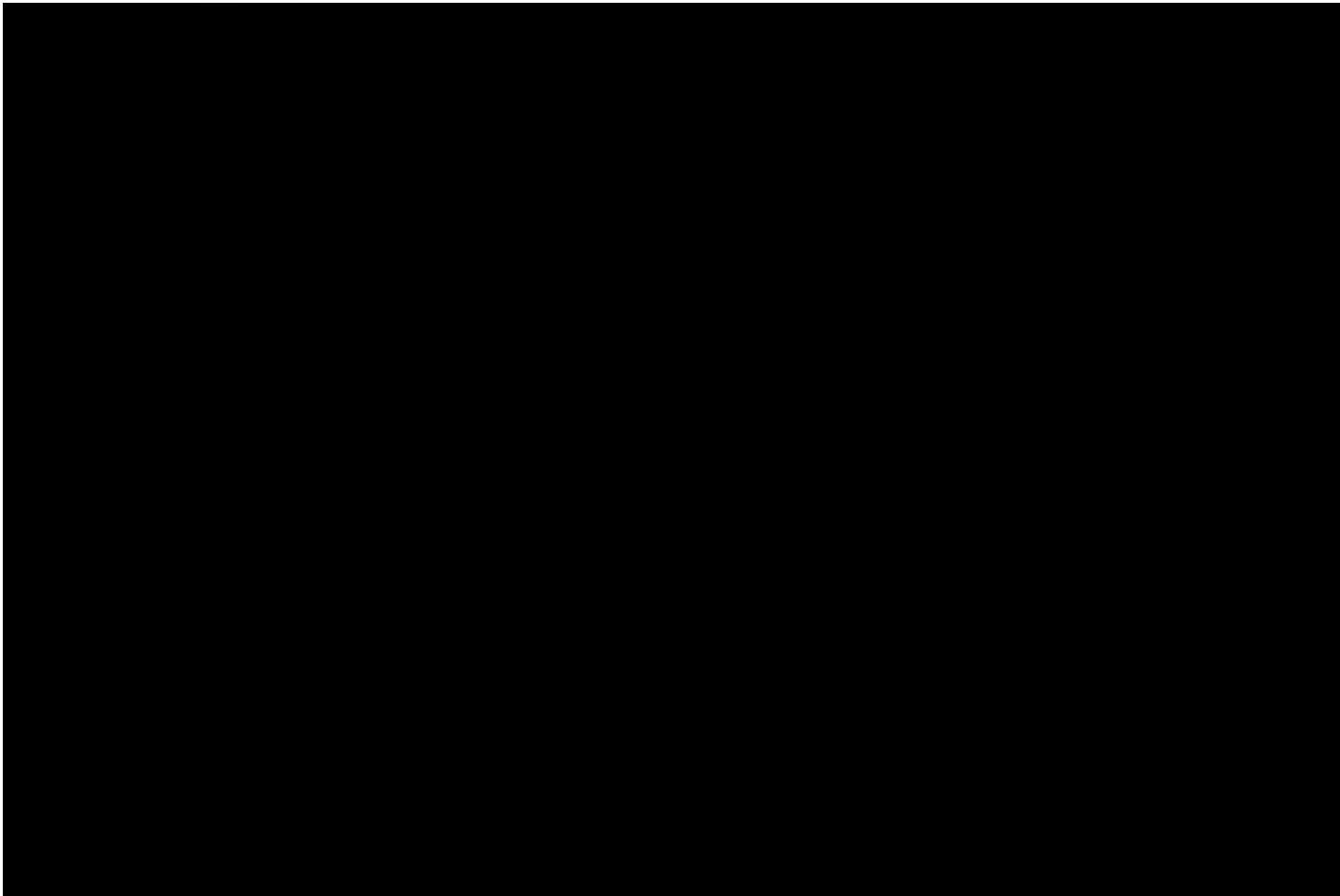


***Use all the CAD/CAM Processes
we've LEARNED***

*Top down modeling, CosmosWorks, 3ds Max,
Rapid Prototyping, Injection Molding, Laser Cutting*

.
.
.

Not only but also
HARDWARE, SOFTWARE !



Vray Renderer, 16hrs x 5 Computers T_T PRELUDE



Top-Down Modeling

Easy to modify/improve the design

Modularization

Joy Stick, Keypad, Click Button

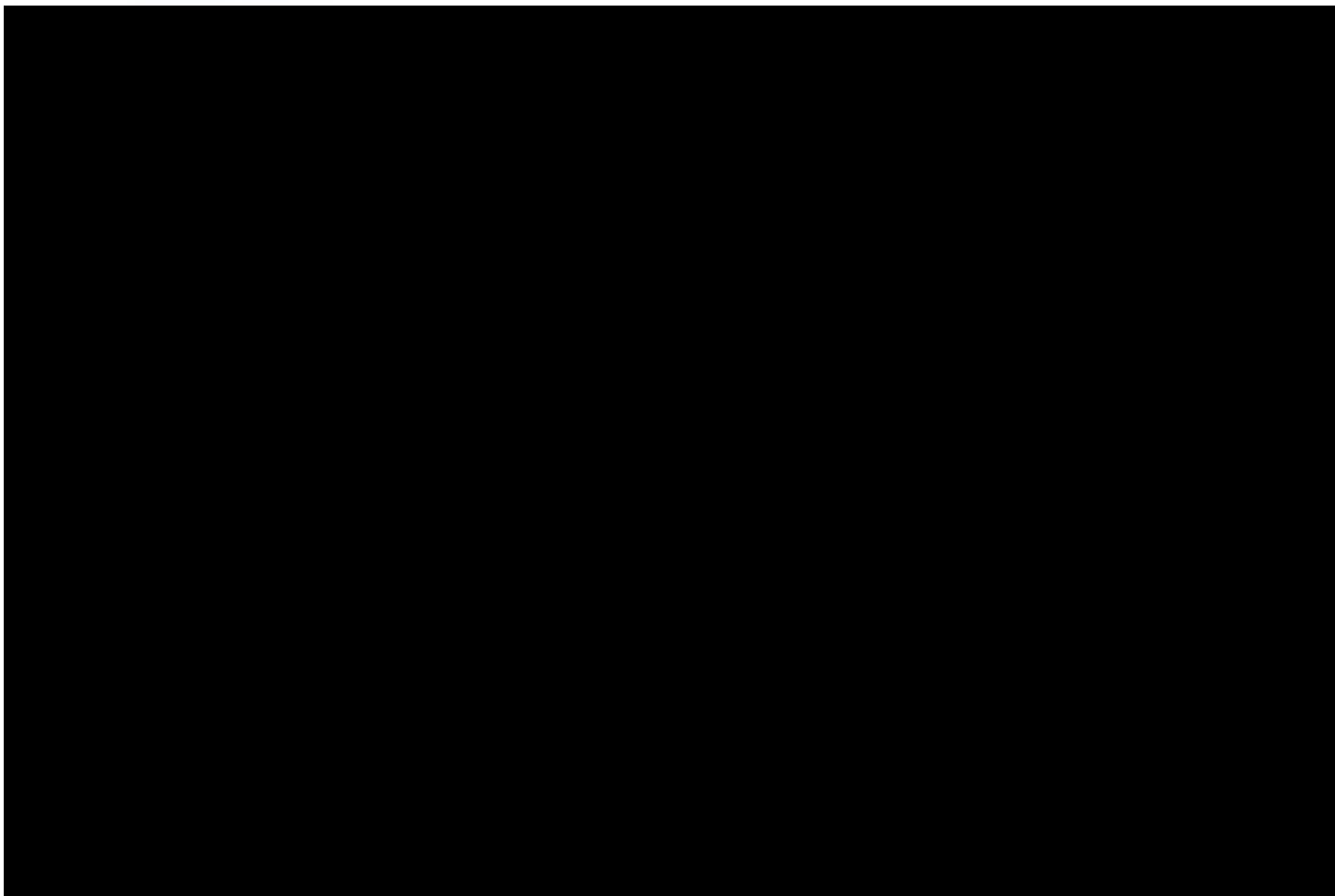
Analysis

Failure Modes, Alternatives

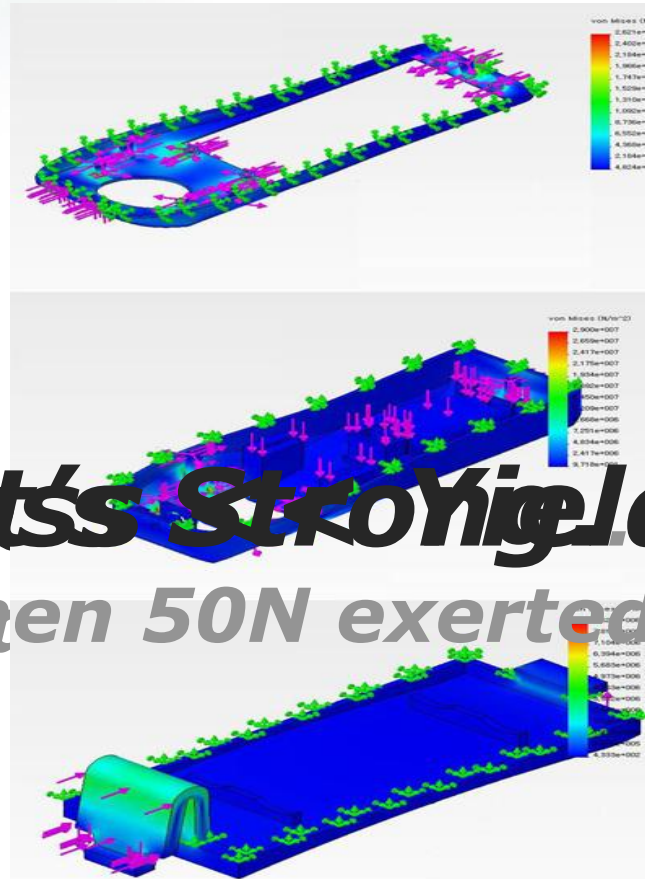


Part Details

Design, Analysis, Manufacturing



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Max. Stress Strongly Stress
When 50N exerted

$2.90e+7N/m^2$

Maximum Strength, 50N Exerted



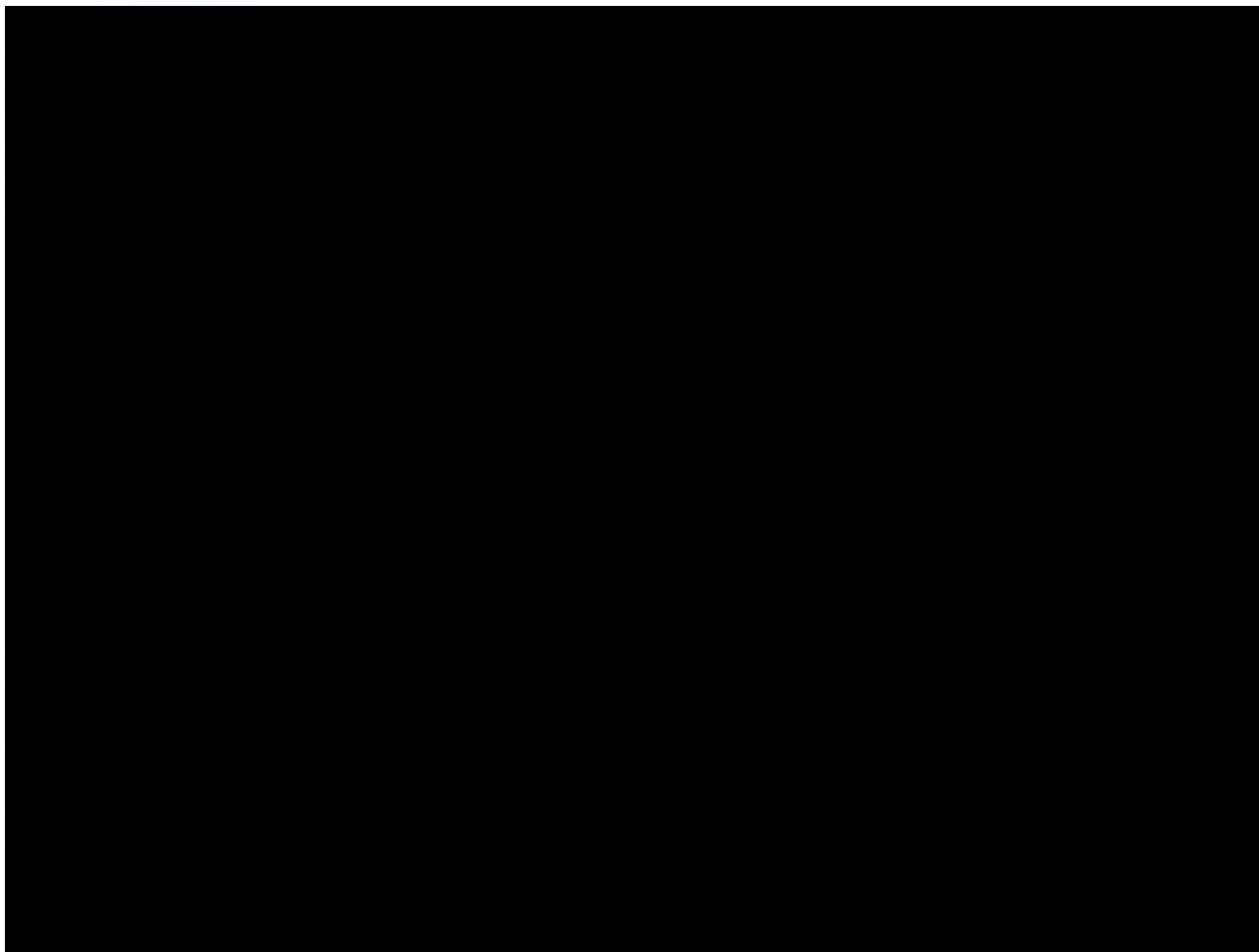
Case & Battery cover



Manufacturing

Rapid Prototyping
ABS, Complex Shape

MUST be accurate
Tolerance is important



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Manufacturing

Machining

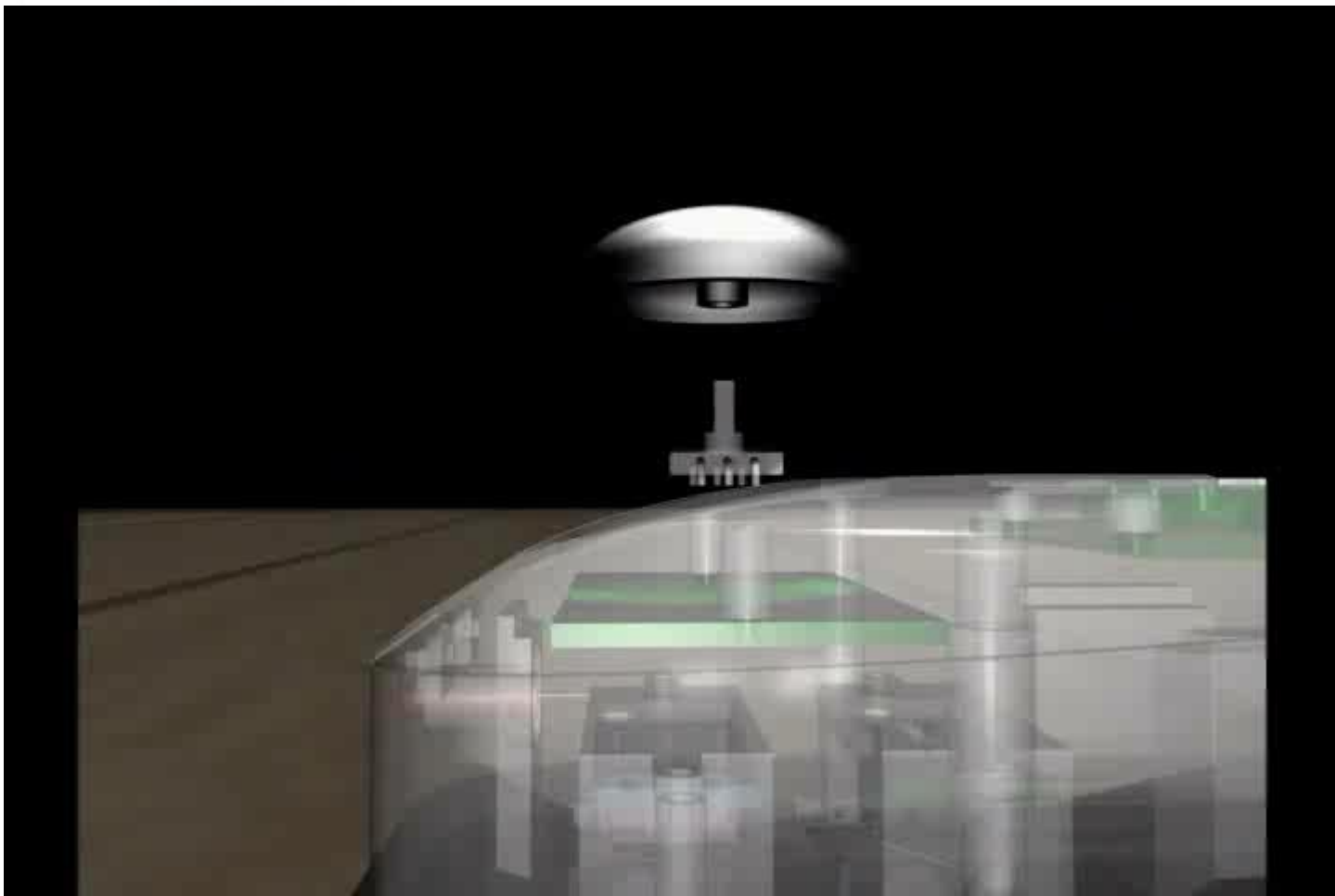
CNC Vs Hands of God(?)

Material

MC Nylon Vs Aluminum

Rubber coating

If possible :)



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Manufacturing

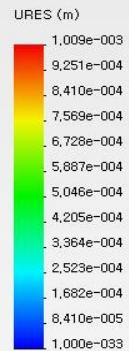
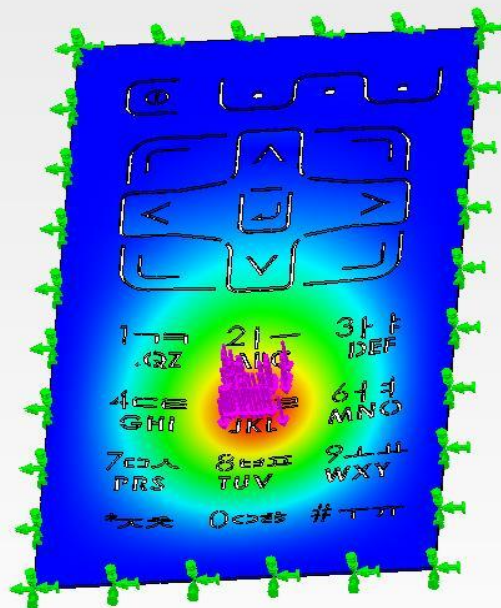
Phosphor Bronze
인청동, High elasticity

Laser Cutting
Channels



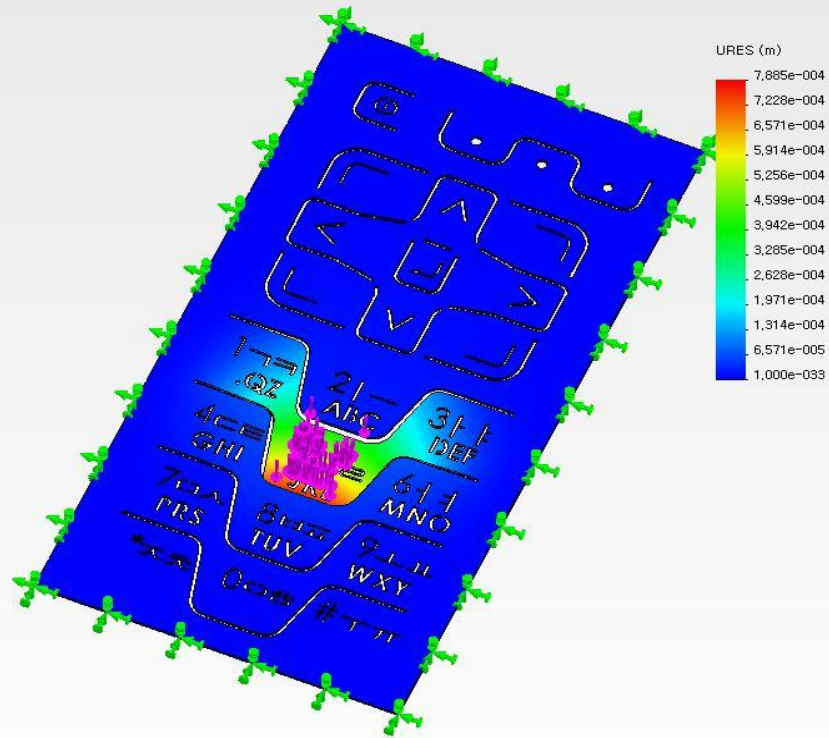


모 이종: 11
 공 이종: 1 계산
 사 이종: 연외 0002
 배 이종: 3





모 이종: 기본필름
 스티디 이종: 1 계산
 이종: 연외 4종2
 이종: 3

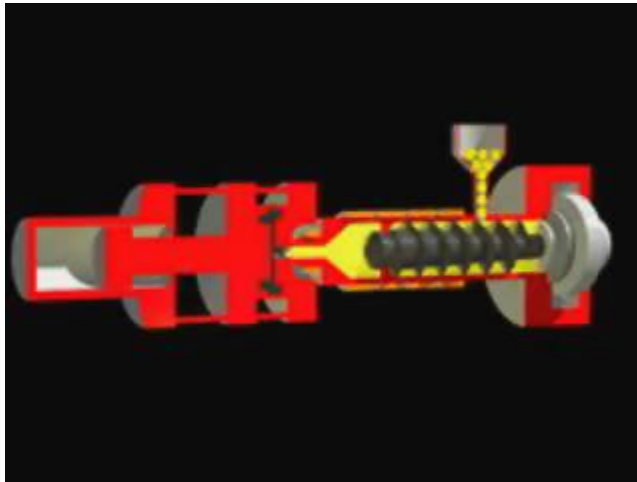




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Click Module



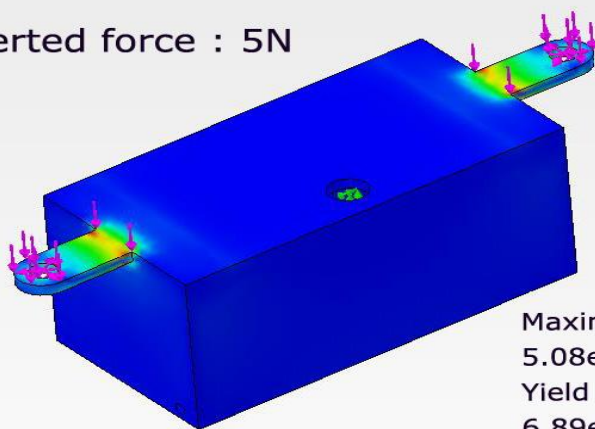
Manufacturing

Injection molding

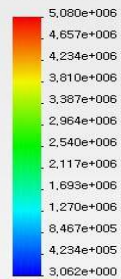
Clone parts

ABS

exerted force : 5N



von Mises (N/m²)



→ 100% 클럭 : 6.890e+007

Maximum Stress:
5.08e+6 N/m²
Yield Stress
6.89e+7 N/m²



Schedule

Nov

21
Second
Presentaion

22
mold
injection

23~24
Complete
Circuit

26
Machining
- Jog

27
Mold Parts
Manufacturing

28
Keypad
Cover
Laser
Cutting

22~23
Case RP
Manufacturing

Dec

3~4
Part Surface
Finishing

5~6
Assembly
Finishing

7~8
Operation
Test

9~11
PRELUDE
Pigmentation

15~16
Prepare PLELUDE
Launching Showcase





Cost

<i>Parts</i>	<i>Quantity</i>	<i>Manufacturing Process</i>	<i>Material</i>	<i>Cost</i>	<i>Note</i>
Case(upper and lower)	2	RP	ABS	65,000 won	
Battery Cover	1	RP	ABS	3000 won 1,000,000 per 1kg	
Click Button	2	Injection Molding	ABS		
Jog	1	Machining	MC-Nylon	150 won	
Click Module Case	2	Machining	MC-Nylon	250 won 7300 per 1kg	
Keypad Cover	1	Laser Cutting	Phosphor Bronze		High Elasticity
IR Remote Module	2	-	-	39000 won	
Circuit Elements	30	-	-	6000 won	



Application Programming



Question?

the lord of the "REMOCON"

2004-11656

SEO, H.W.

2004-11658

SUNG, M.S.

2004-11698

LEE, S.M.

2005-11502

BAEK, S.Y.

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