Catia project

인형 뽑기

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프로젝트의 목표

CATIA

프로젝트 제품 설계

엔지니어 능력 함양

프로젝트 과정

모델 선정 기준

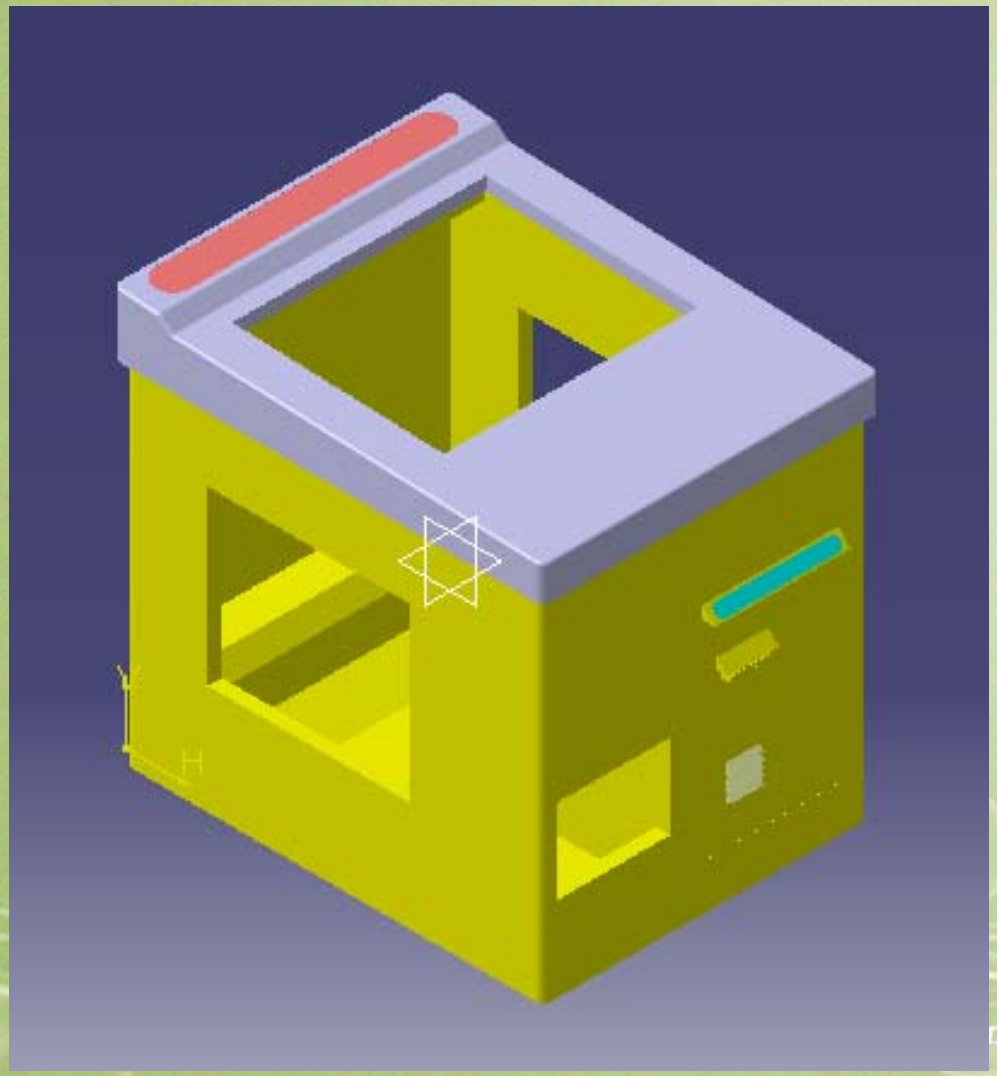
WHY 인형 뽑기?

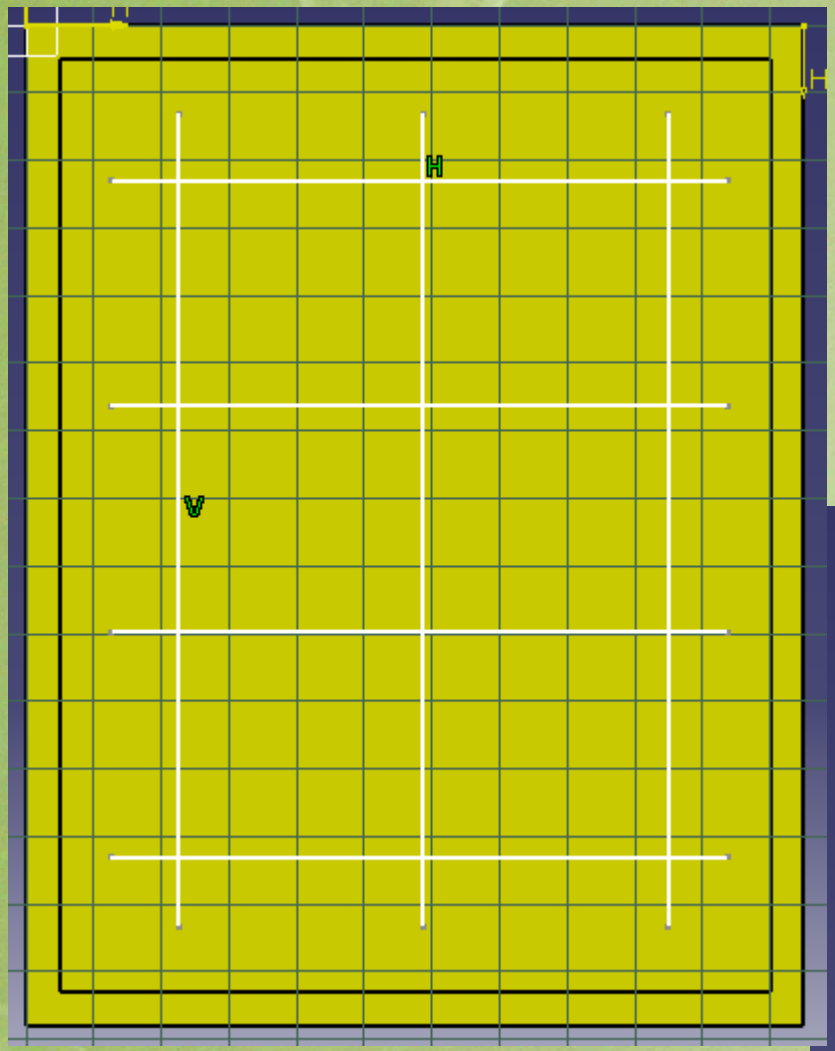
-주변에 있는 친근한 기계

-참고할 모델을 찾기 쉬움

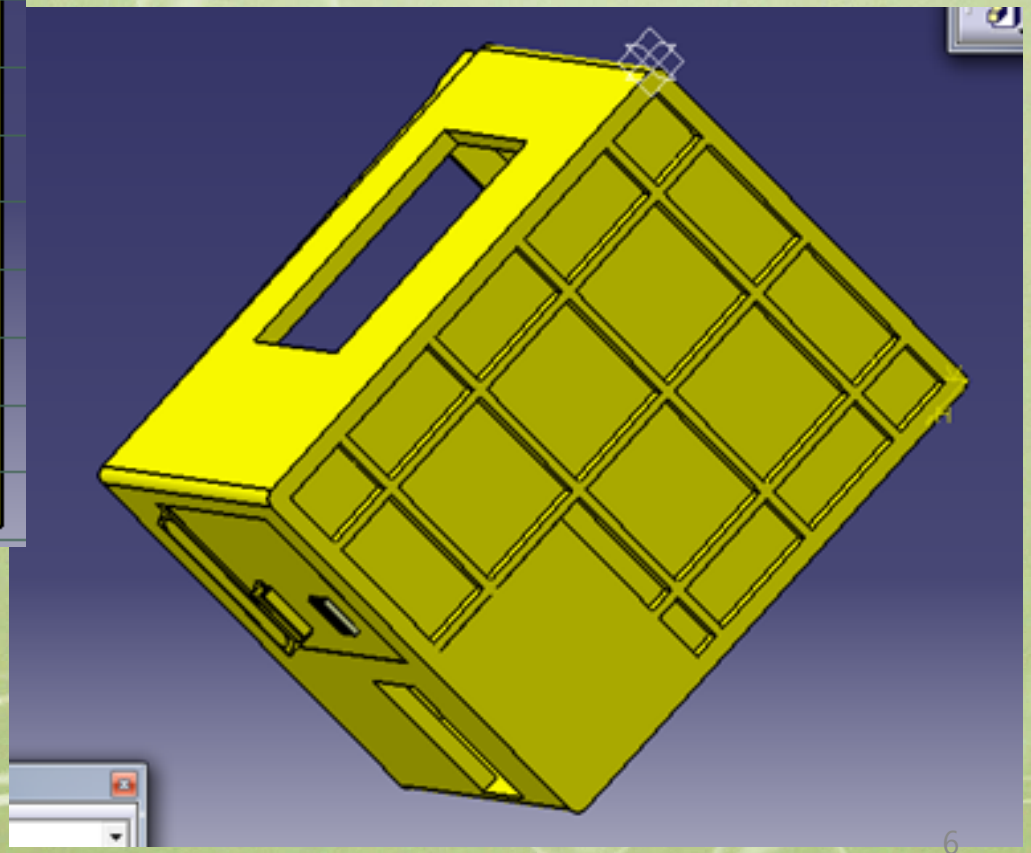
-CAD 시간에 배운 원리와 기능을 최대활용 가능

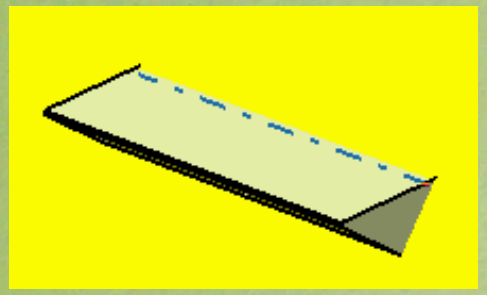
PART DESIGN



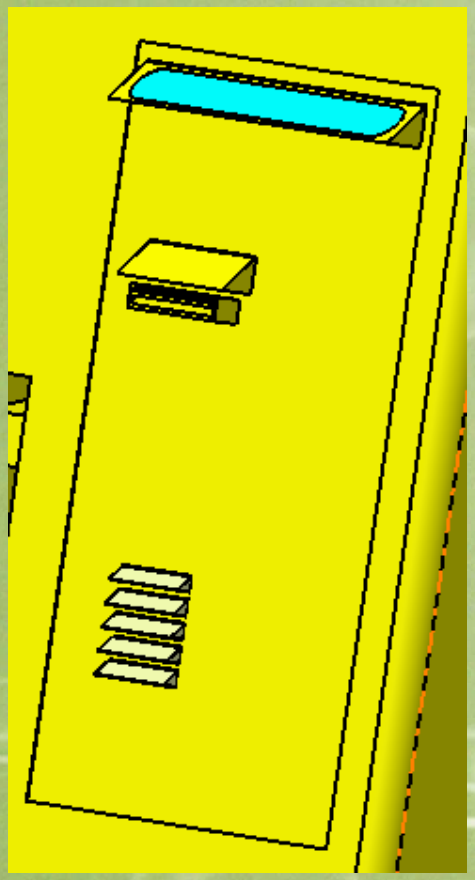


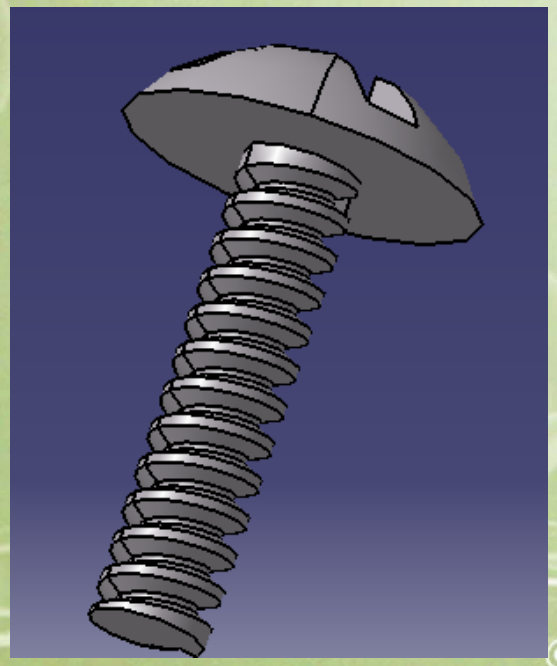
- RIB
- MERGE END

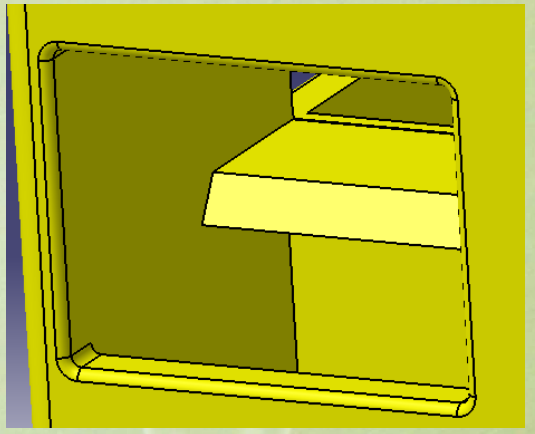




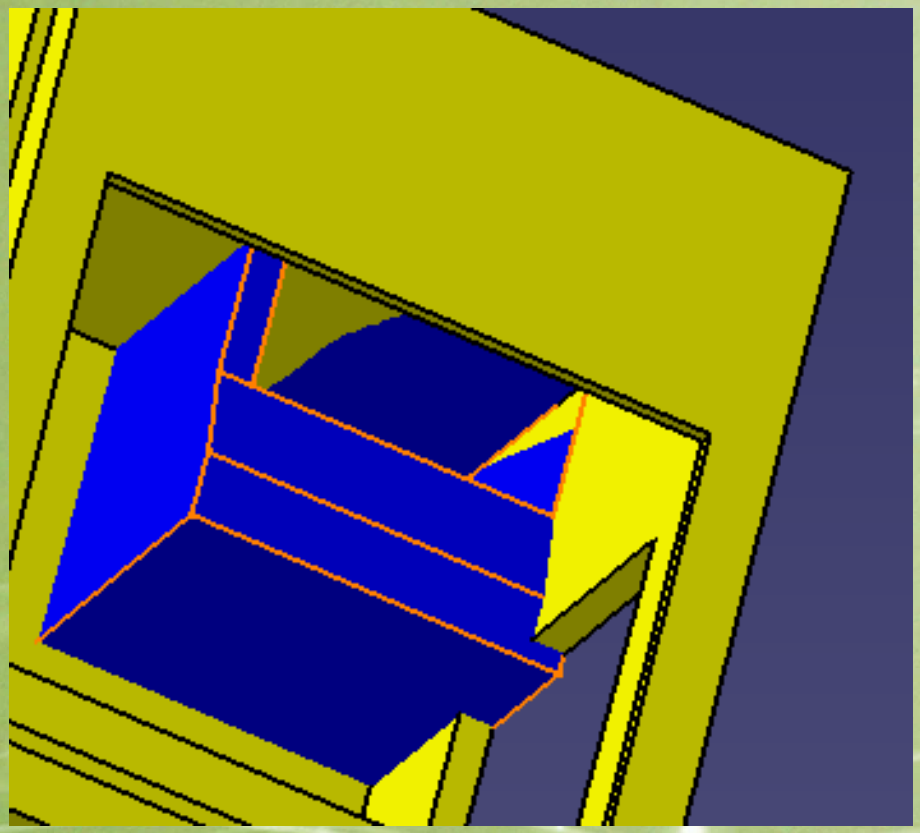
- CHAMFER
- RECTANGULAR PATTERN
- SLOT
- FILLET

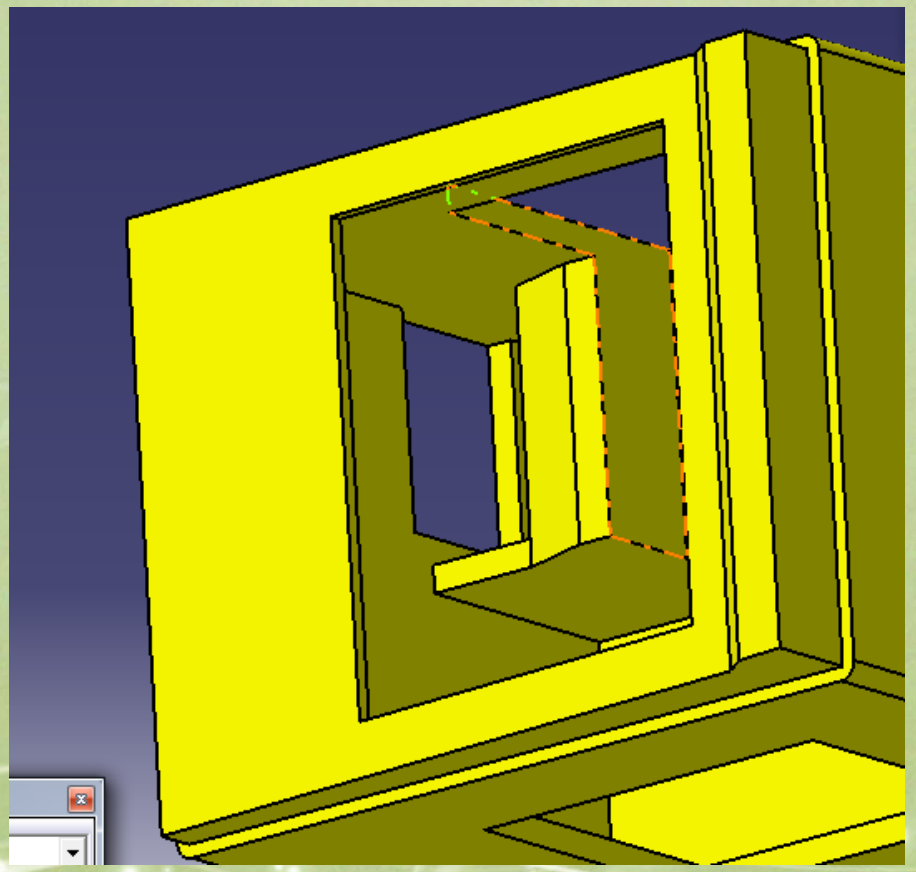




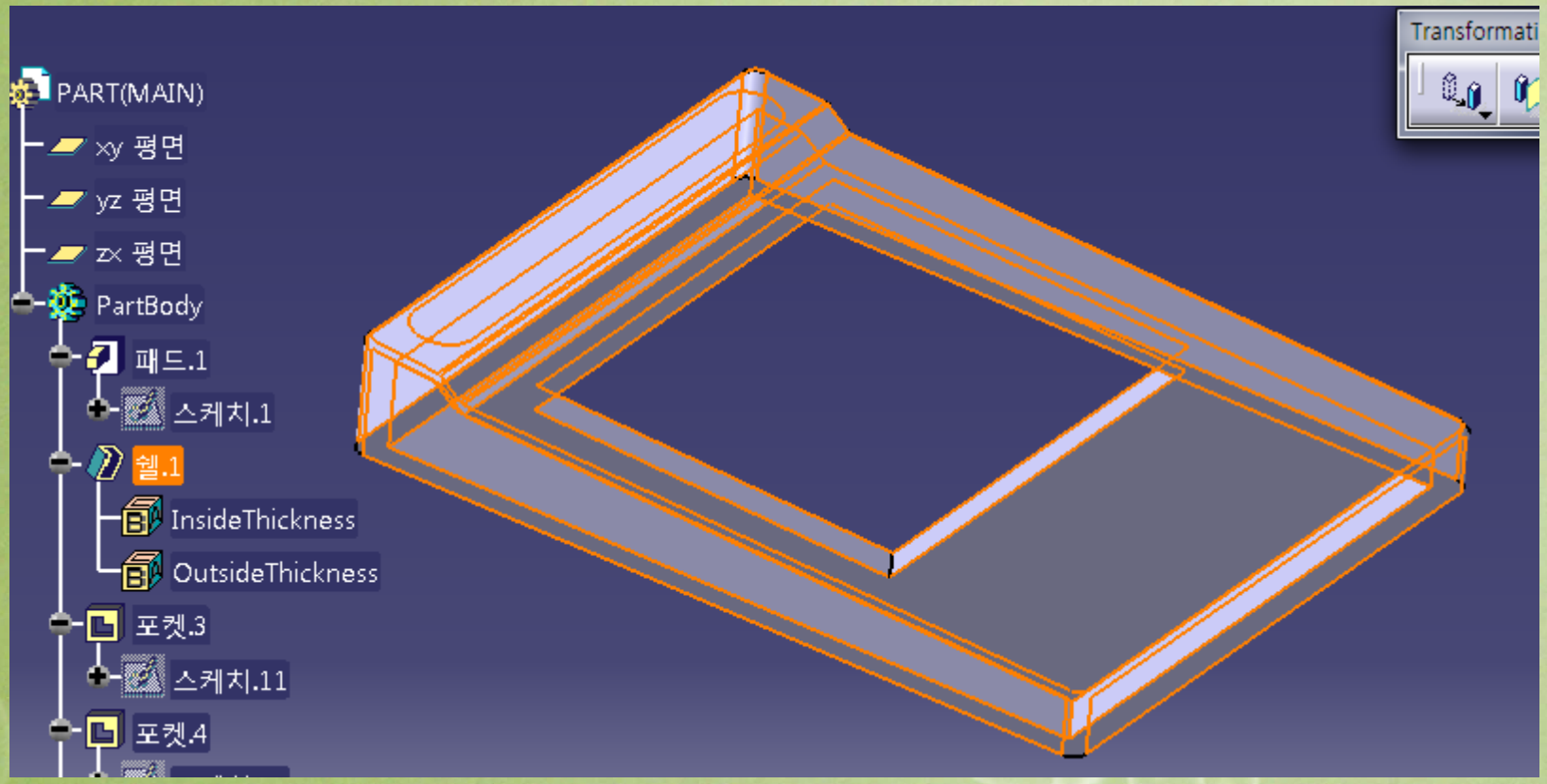


BOOLEAN





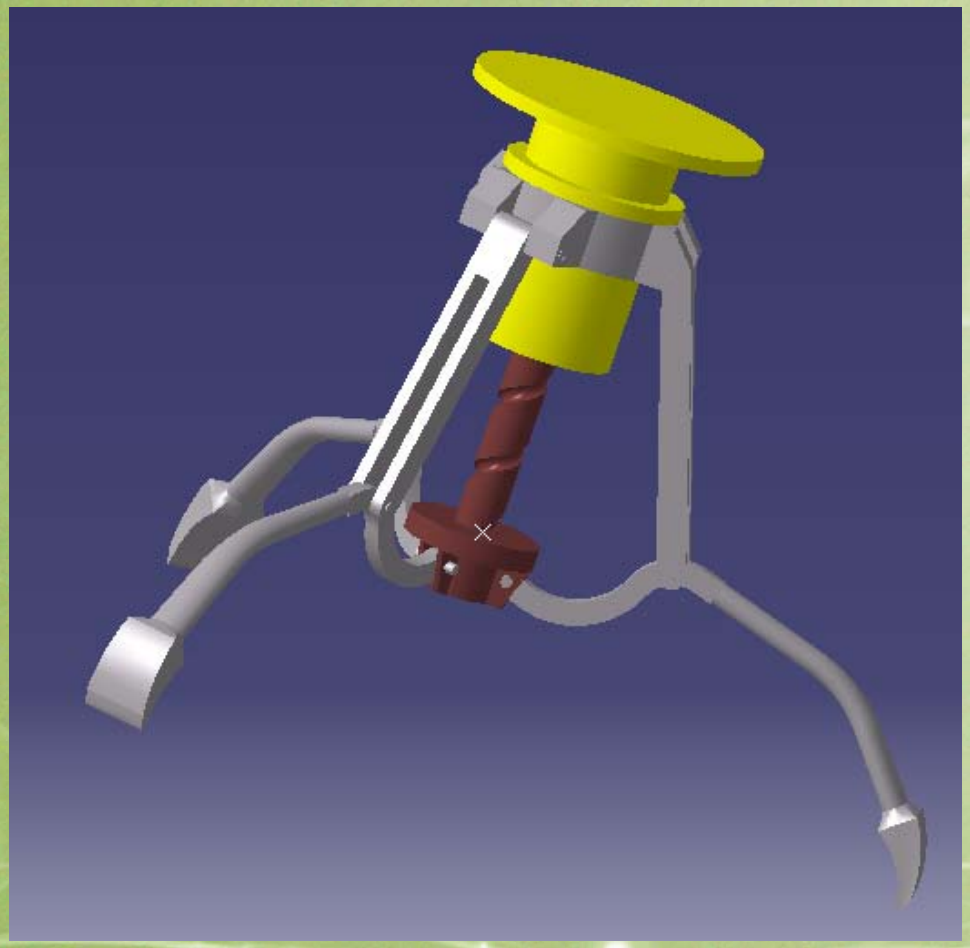
SHELL

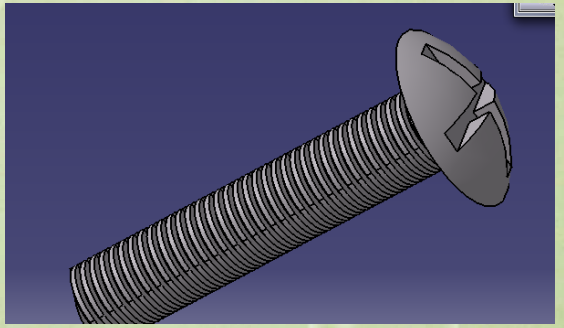


Part design 의 실제 활용

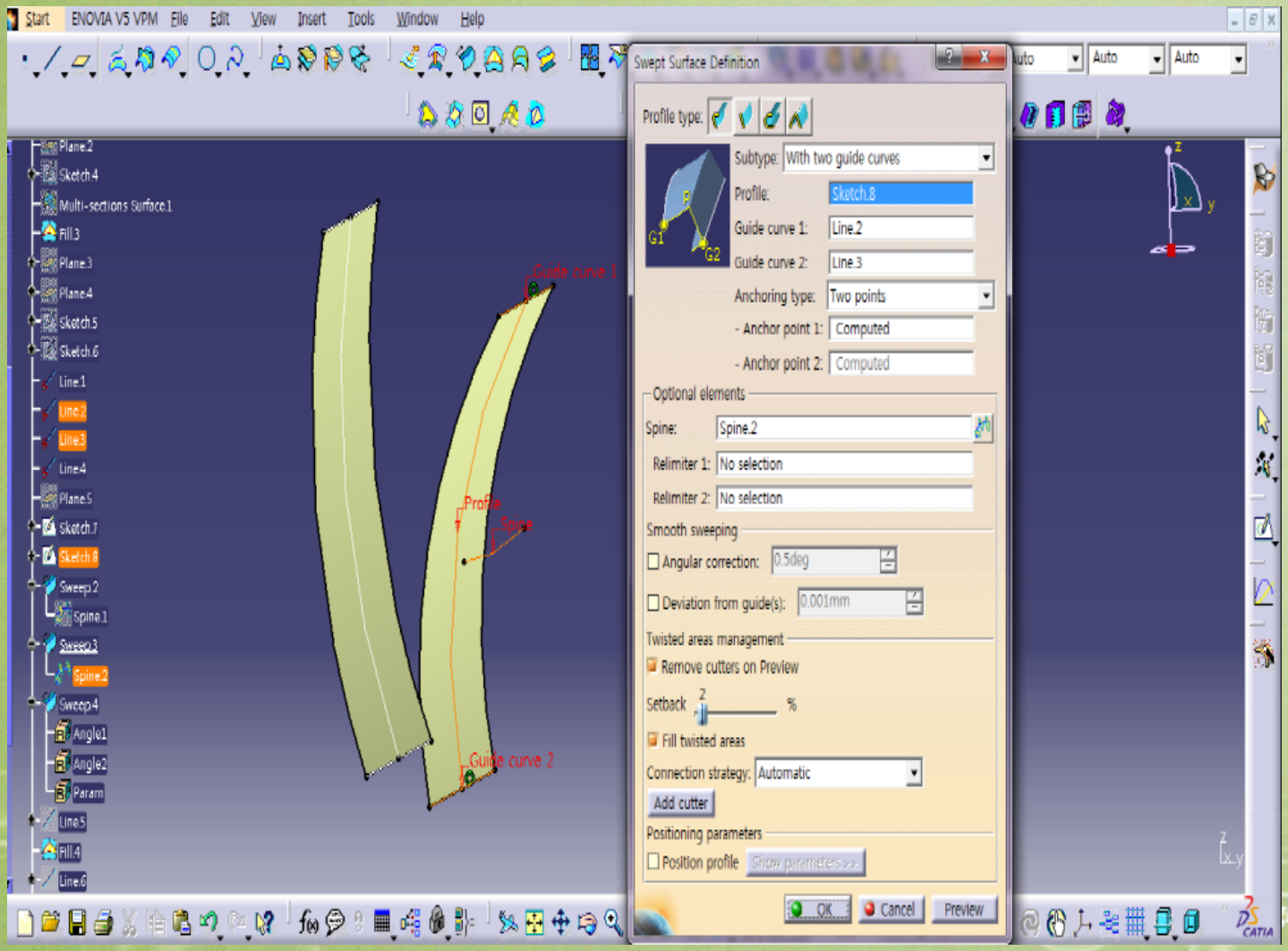
- 복잡한 곡면이 없는 파트
- Boolean으로 만든 파트는 수정이 용이
- 같은 모양을 패턴을 이용해 복제 용이

GENERATIVE SHAPE DESIGN

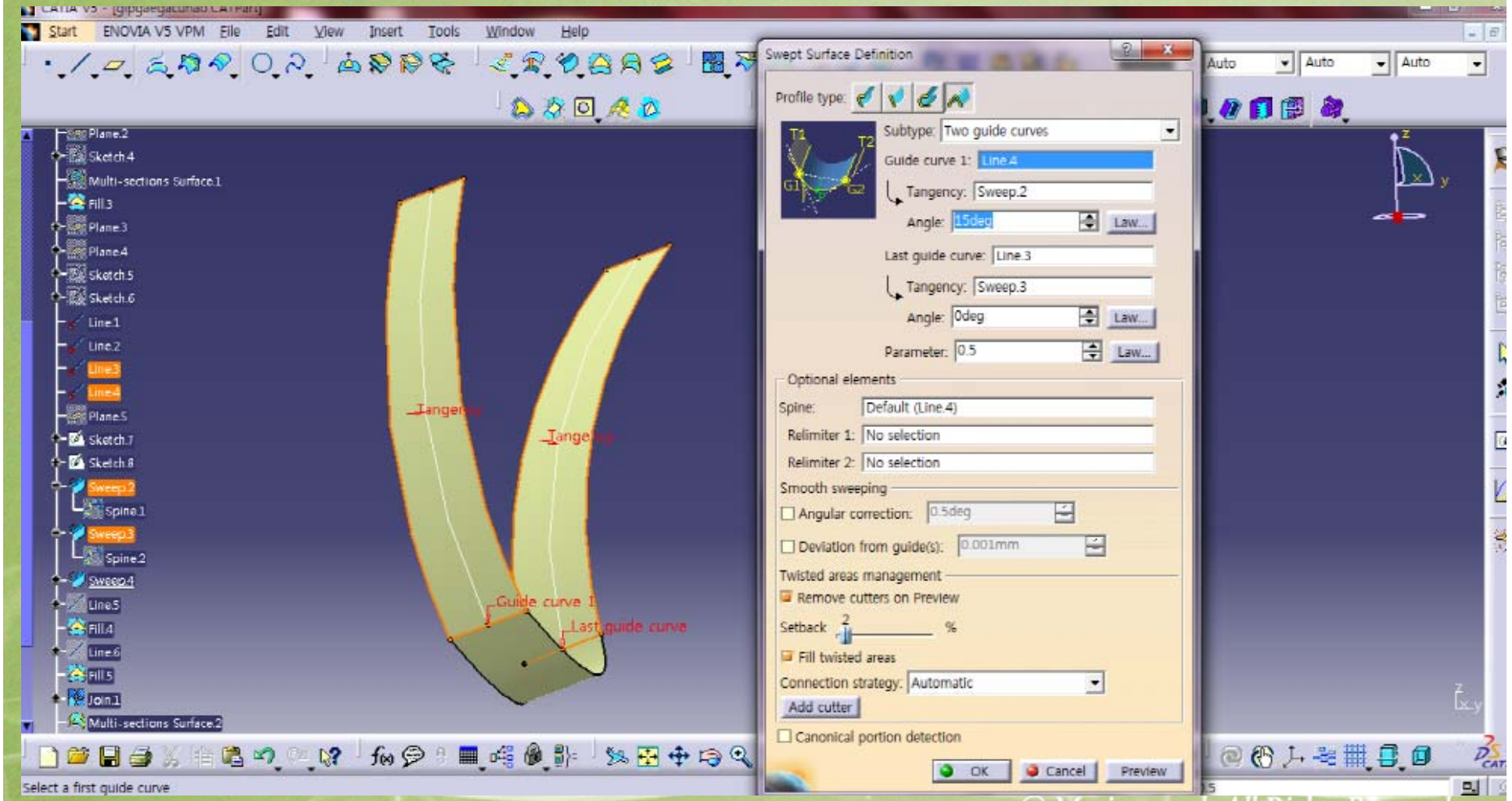




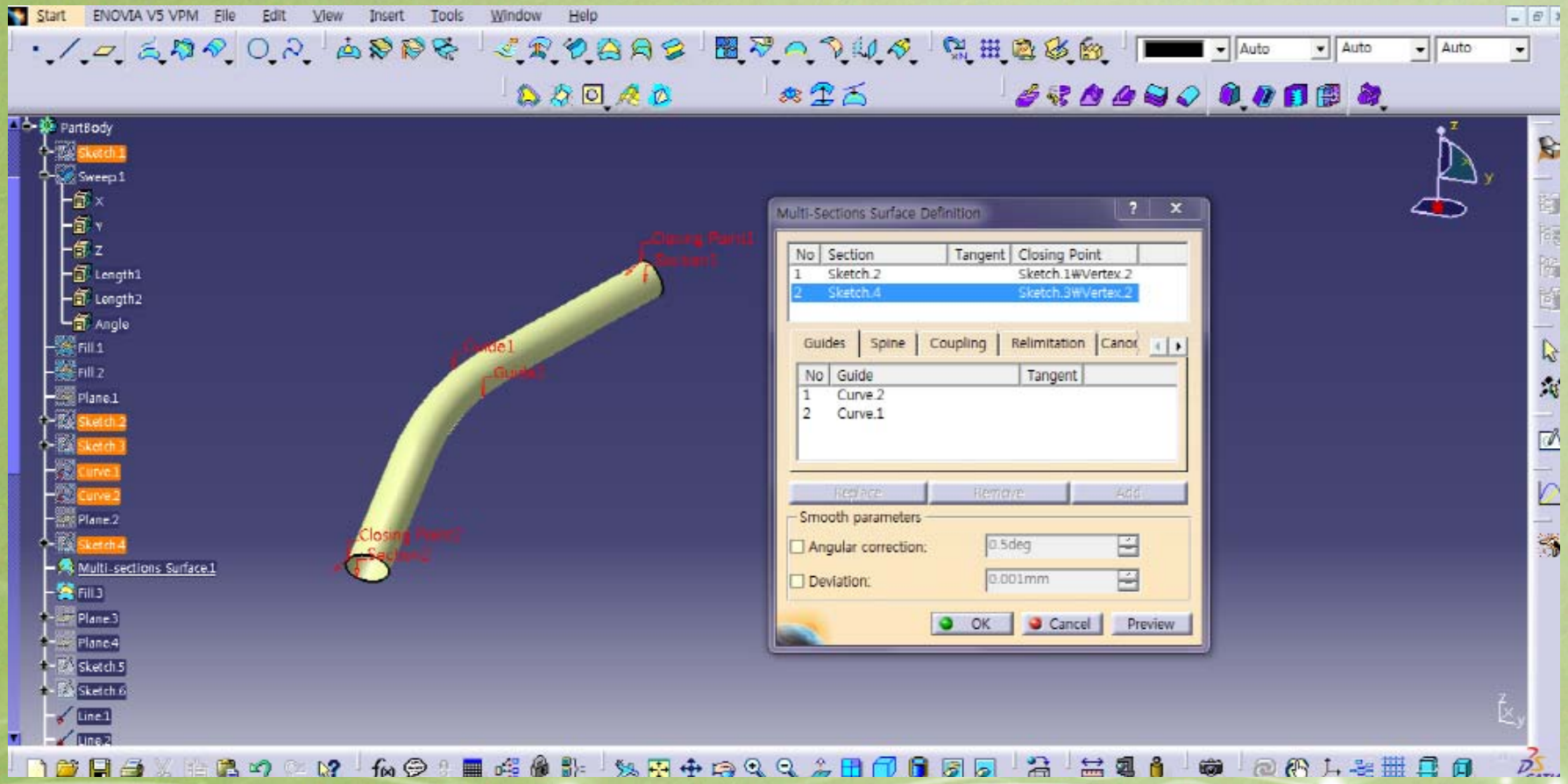
Sweep (explicit)



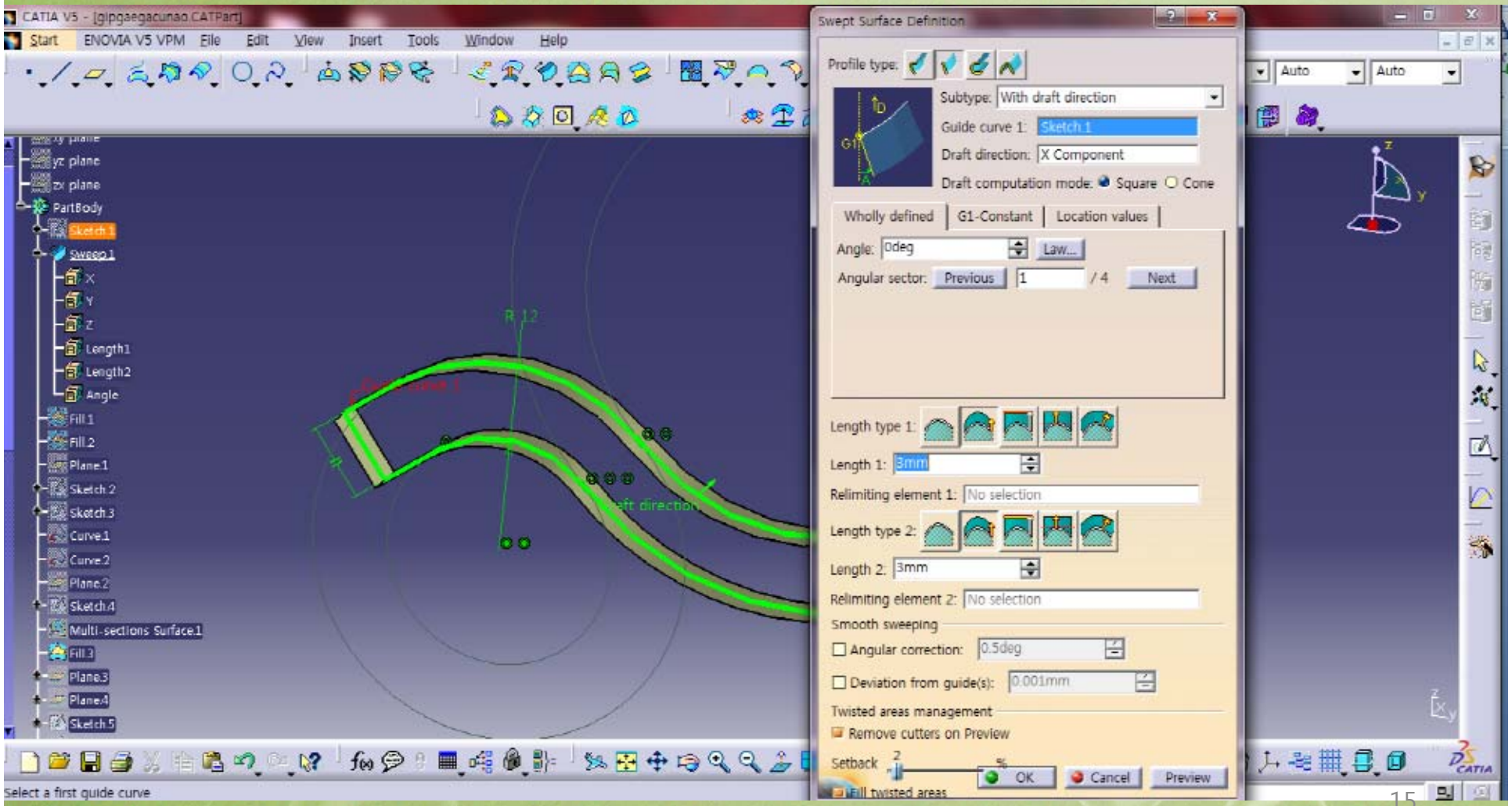
Sweep (conic)



Multi-section surface



Sweep (line)

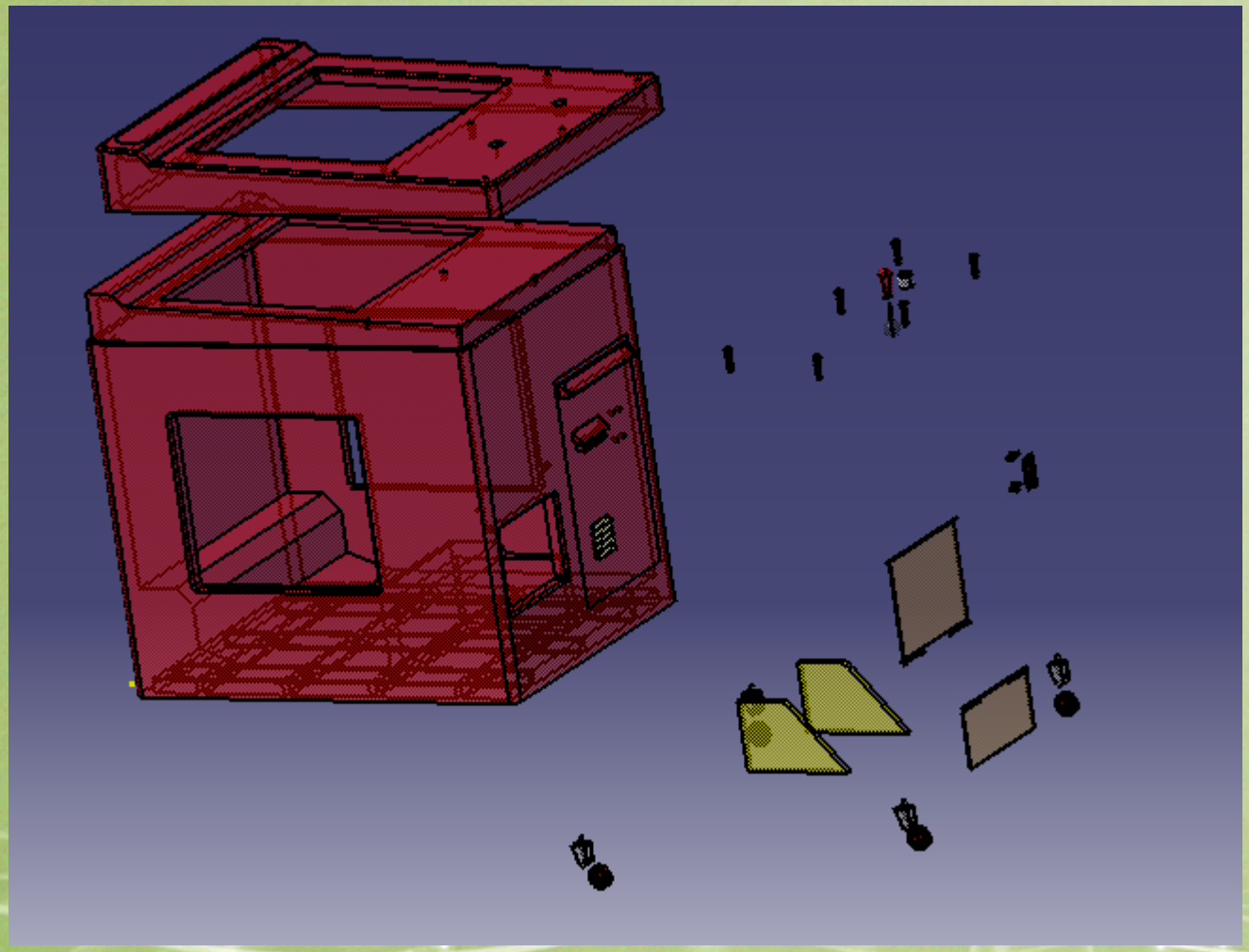

CATIA V5 - [gipgaegacunao.CATPart]
Start
ENOVIA V5 VPM
File
Edit
View
Insert
Tools
Window
Help
yz plane
zx plane
PartBody
Sketch.1
Sweep.1
X
Y
Z
Length1
Length2
Angle
Fill.1
Fill.2
Plane.1
Sketch.2
Sketch.3
Curve.1
Curve.2
Plane.2
Sketch.4
Multi-sections Surface.1
Fill.3
Plane.3
Plane.4
Sketch.5
R 12
Swept Surface Definition
Profile type:
Subtype: With draft direction
Guide curve 1: Sketch.1
Draft direction: X Component
Draft computation mode: Square Cone
Wholly defined
G1-Constant
Location values
Angle: 0deg
Law...
Angular sector: Previous 1 / 4 Next
Length type 1:
Length 1: 3mm
Relimiting element 1: No selection
Length type 2:
Length 2: 3mm
Relimiting element 2: No selection
Smooth sweeping
Angular correction: 0.5deg
Deviation from guide(s): 0.001mm
Twisted areas management
Remove cutters on Preview
Setback
OK
Cancel
Preview
Fill twisted areas
Auto
Auto
Select a first guide curve

GSD 의 실제 활용

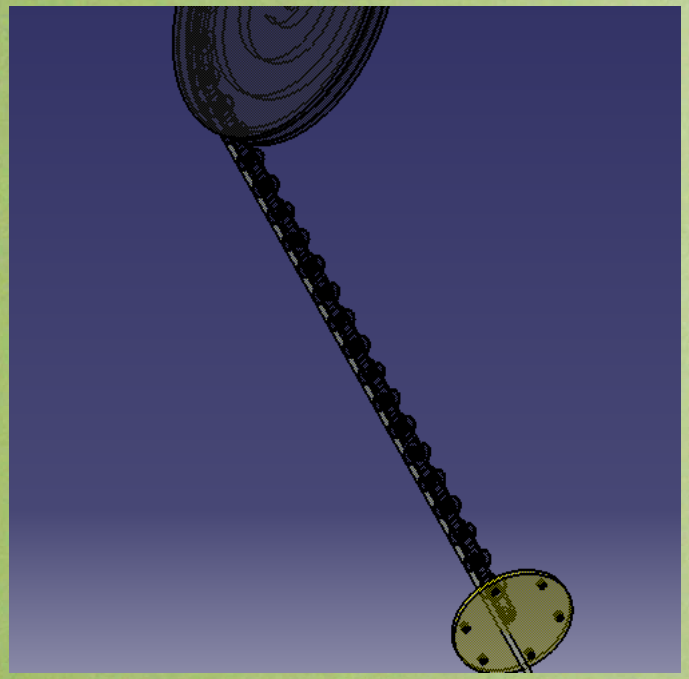
- 복잡한 곡면을 가진 part 설계

- 나사선 같은 스케치로 그릴 수 없는 곡선 만들기

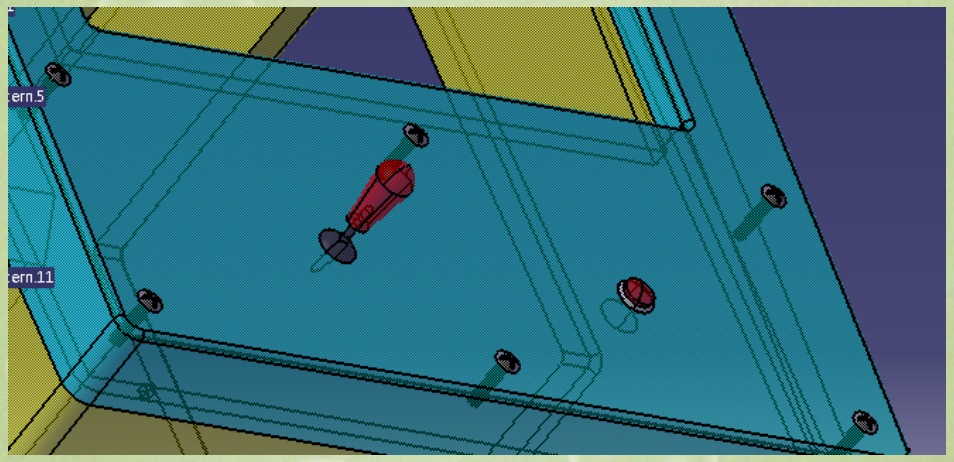
ASSEMBLY



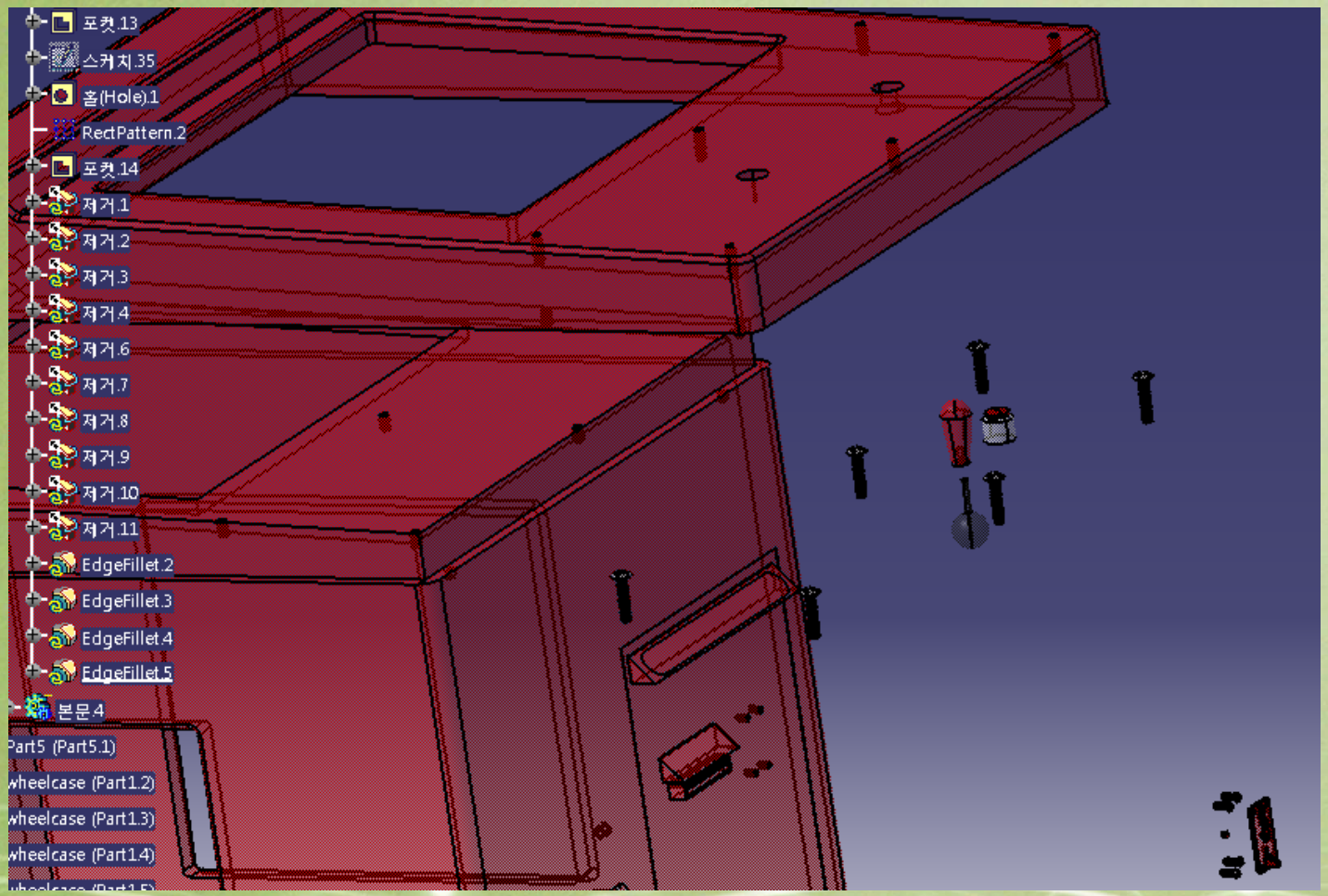
MULTI - INSTANTIATION



REUSE PATTERN



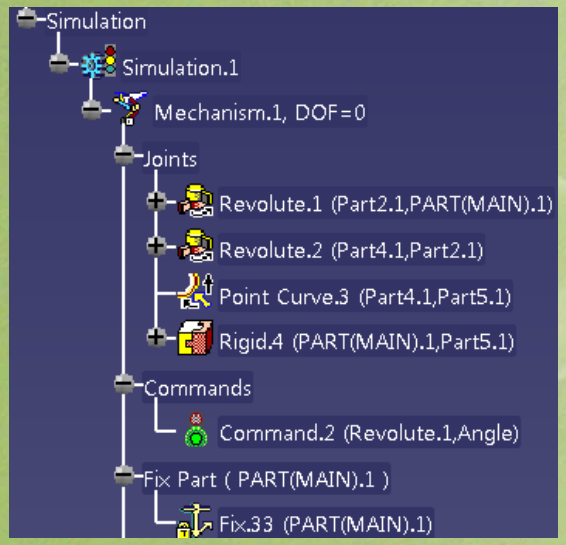
boolean



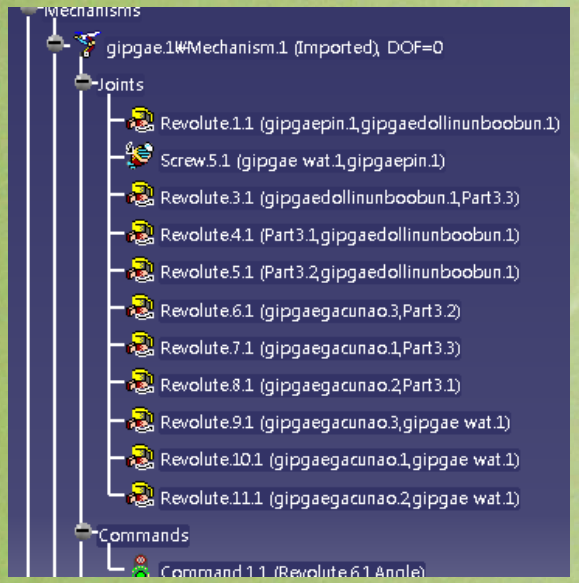
Assembly 의 실제 활용

- 각 part들을 조립할때 활용
- Assembly의 Boolean 기능을 이용해 쉽게 다른 part에도 나사선등을 적용 가능
- Multi intantiation 을 이용해 쉽게 복사

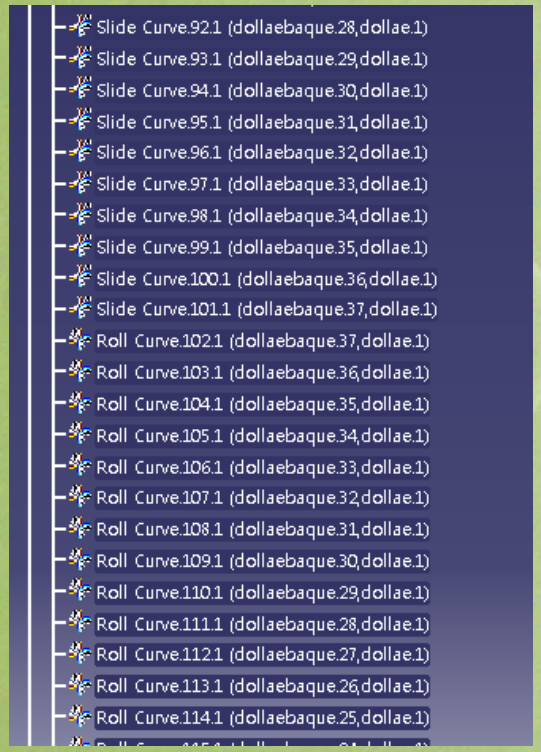
DMU KINEMATICS (point curve)



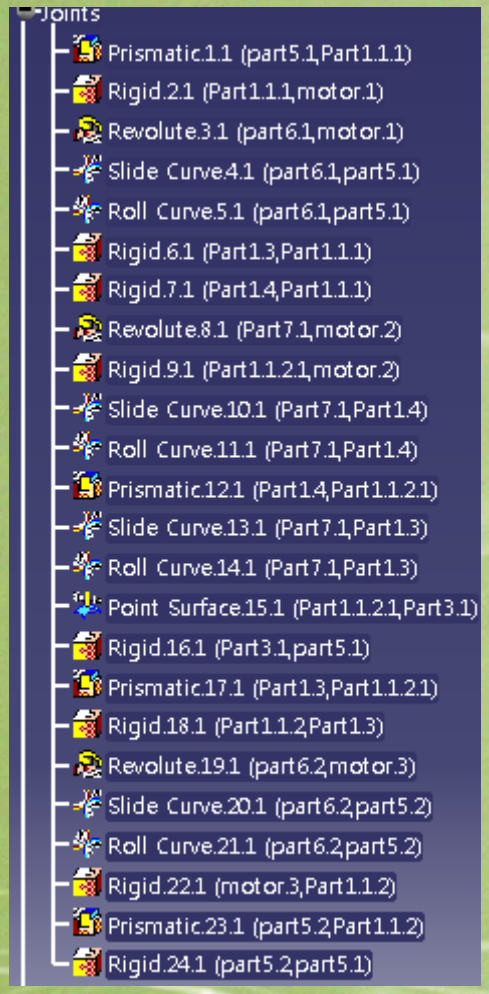
Revolute & screw



Slide curve & roll curve

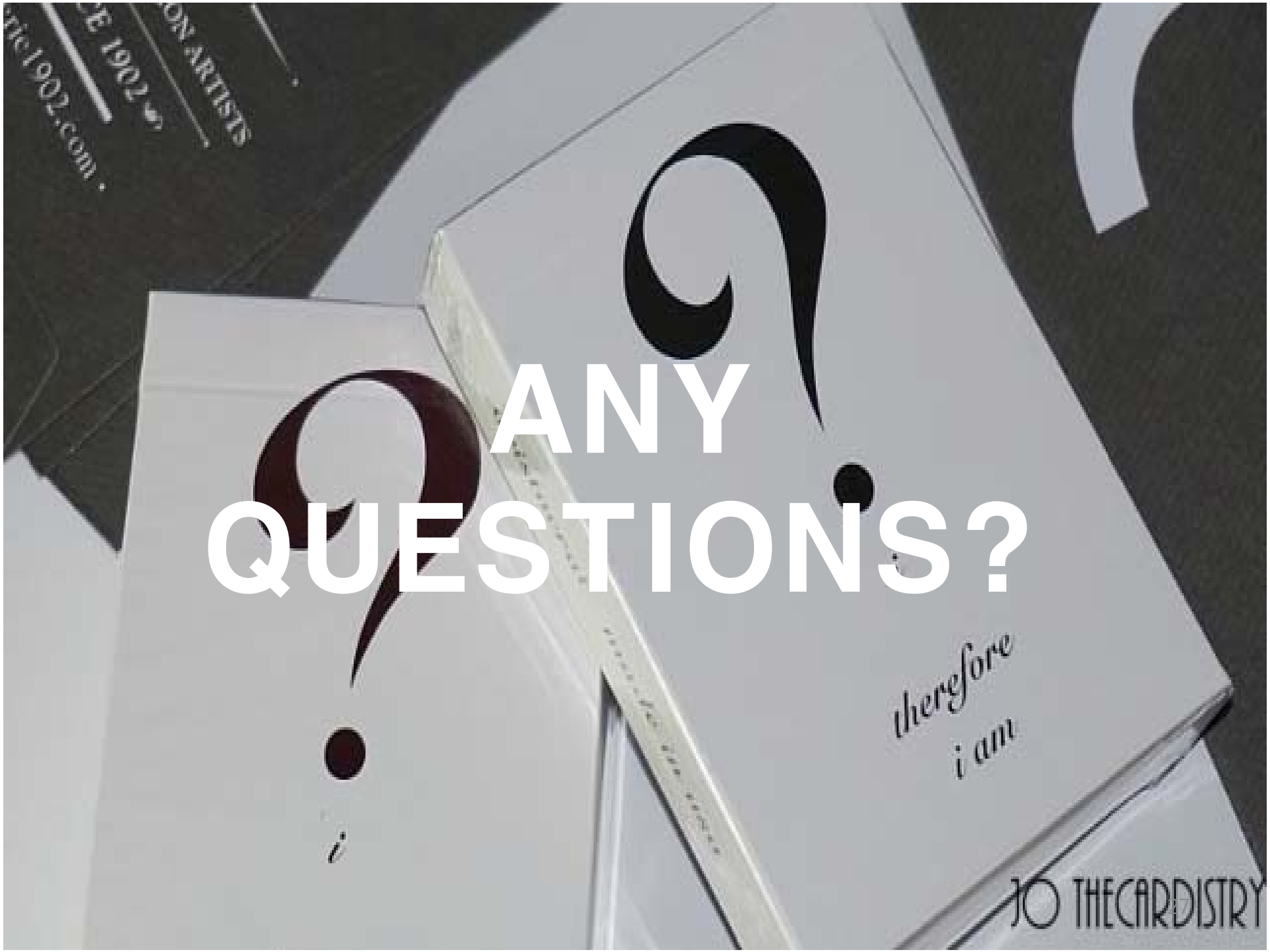


Point surface



DMU 의 실제 활용

- 매커니즘을 만들고 시뮬레이션
- Dress up 기능으로 각자 만든 product를 동시에 구동할 수 있음


ANY
QUESTIONS?
therefore
i am
JO THECARDISTRY