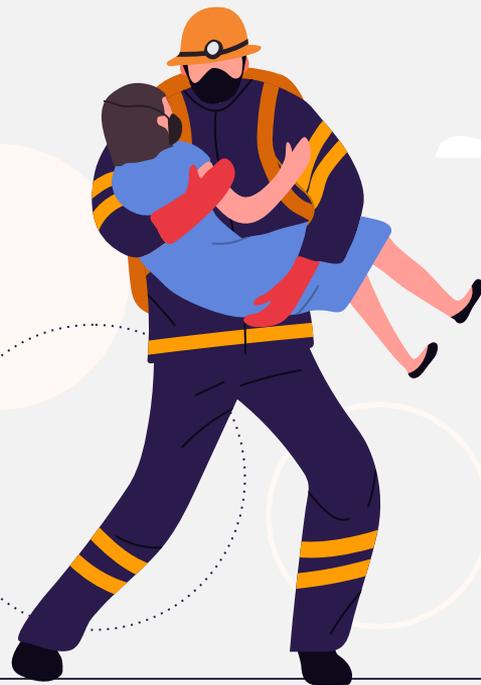
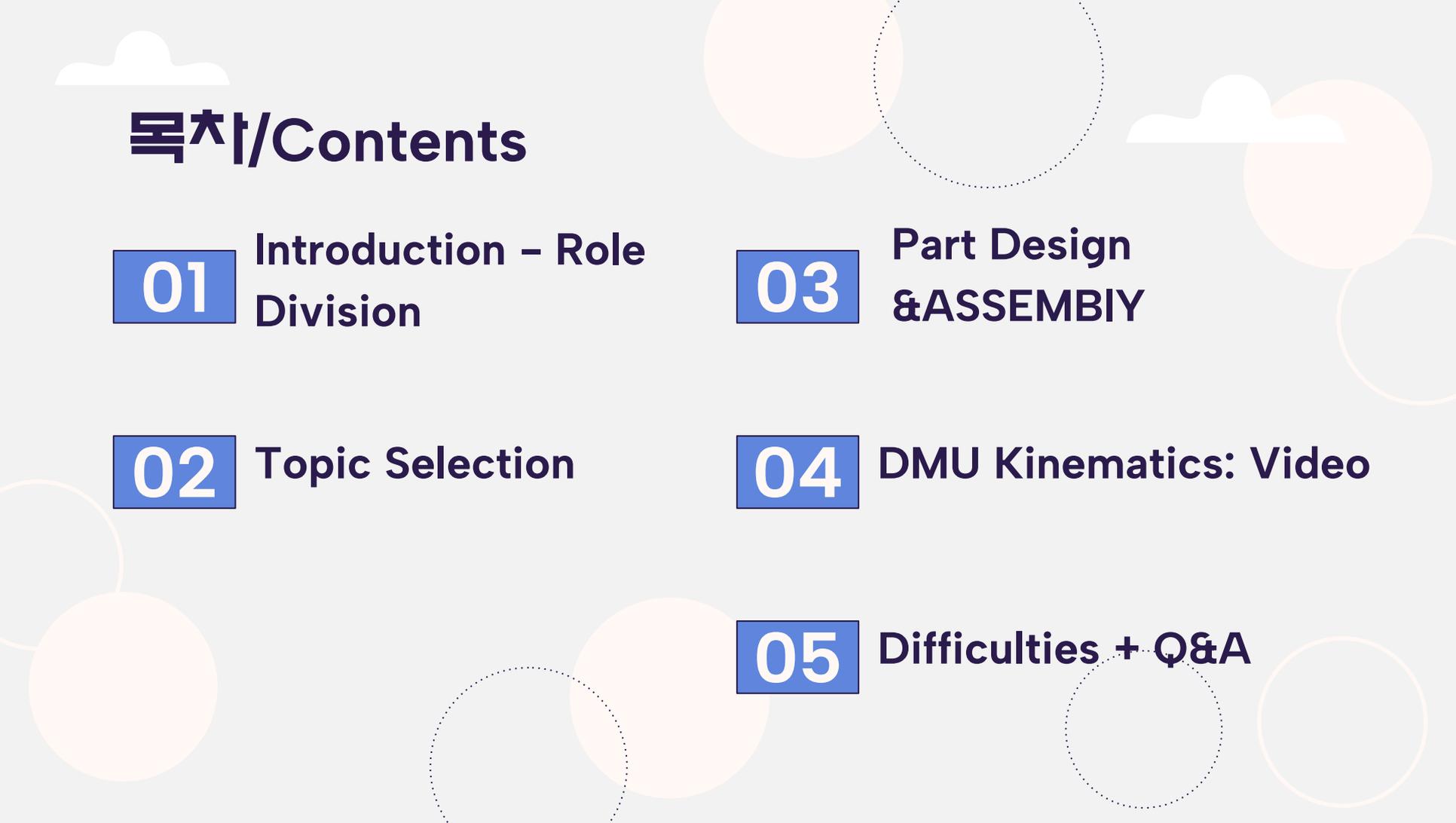


더 높은 곳으로!

(소방차)

백종욱, 이지훈, 이정민





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Division**

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& ASSEMBLY**

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01

Introduction – Role Division



**이지훈 : 차체 및 바퀴 설계, dmu, 어셈블리 디자인
ppt제작**

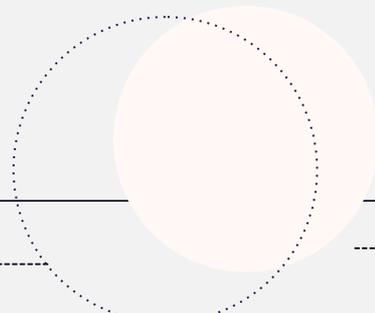
백중옥 : 사다리 설계, dmu, 어셈블리 디자인

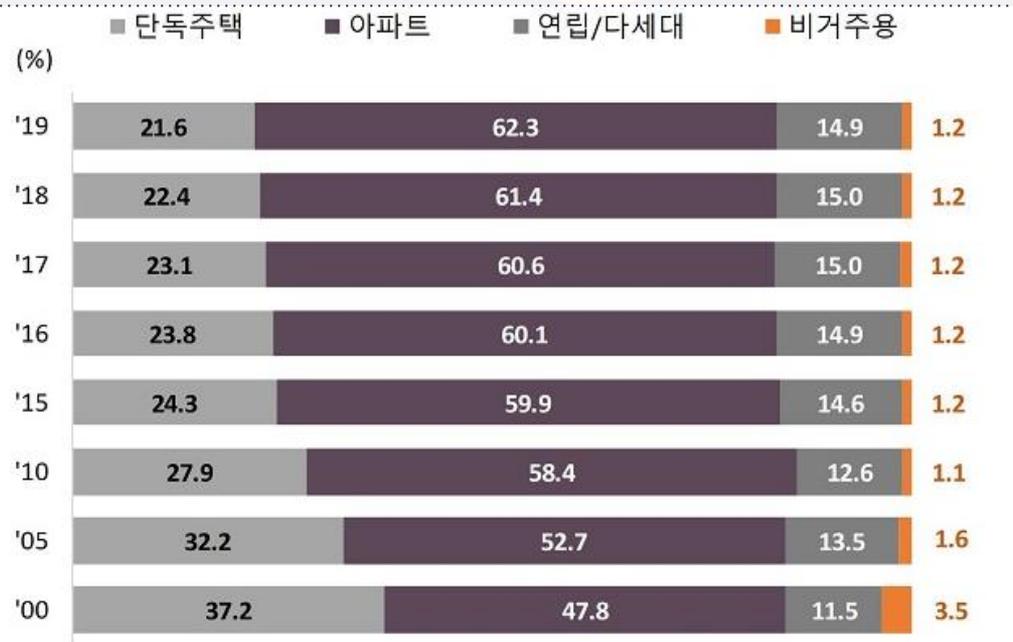
이정민 : 차체 설계 및 디자인



02

주제선정 배경





<표 1> 연도별 주택 종류 추이 <자료=통계청>

2018 인구주택총조사

거처유형별 가구 비율 추이 (단위: %)



자료: 통계청

19.08.29 뉴시스 그래픽: 전진우 기자 618tue@newsis.com



PE-250N



참고 모델



6 단계의 특수 알루미늄 붐

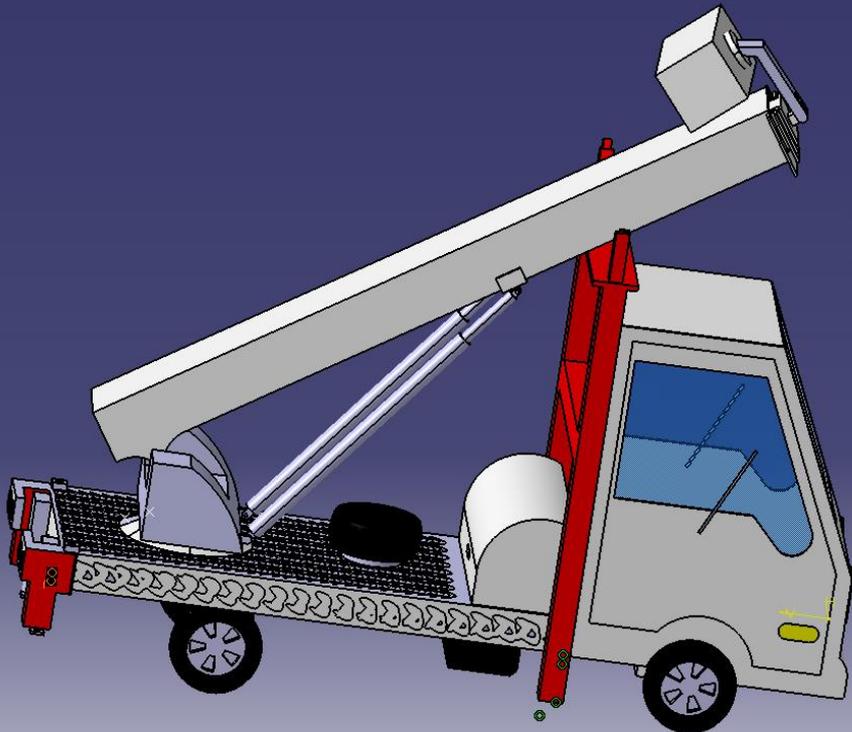


03

Part Design & Assembly

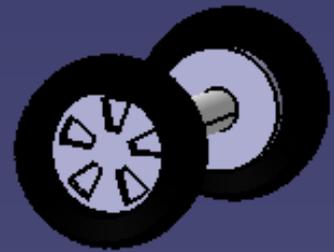
Jucl1

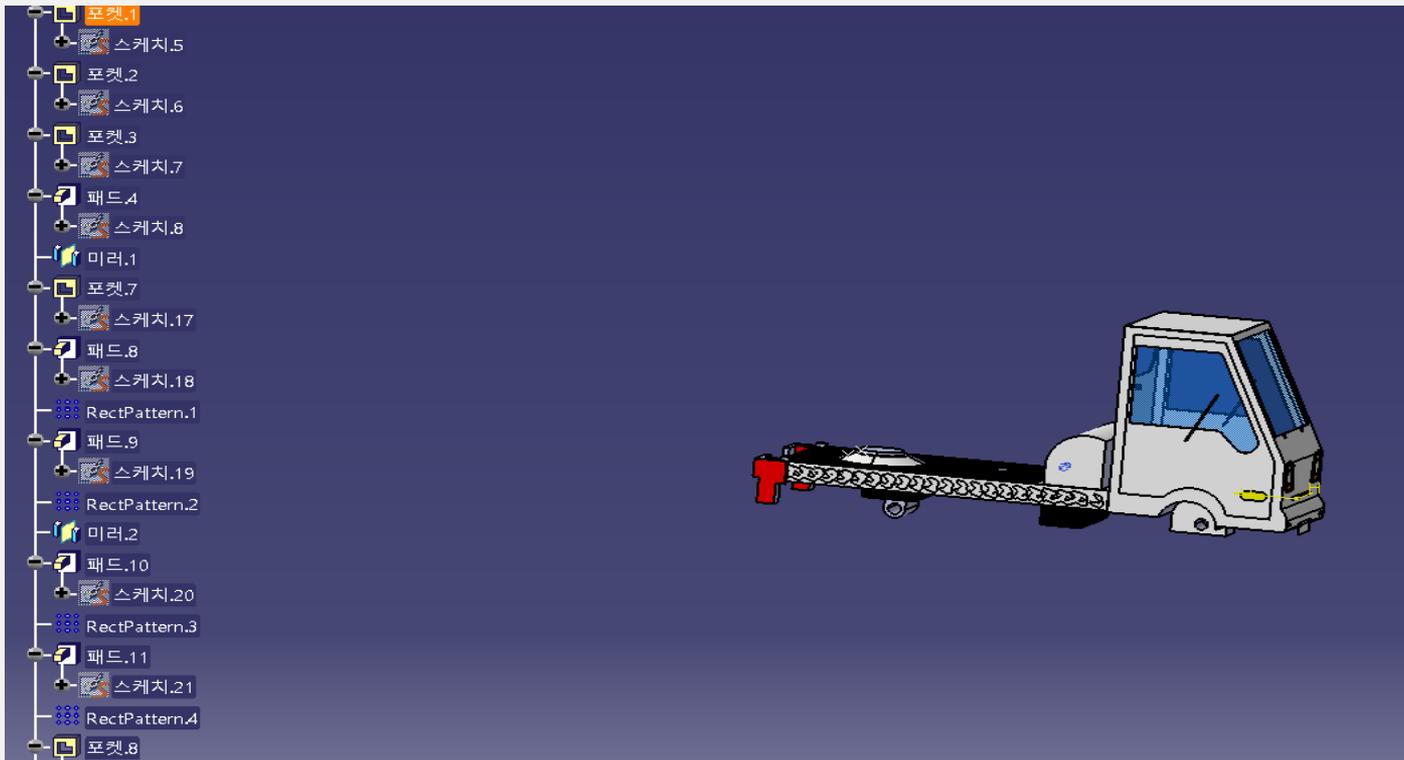
- Part1 (Part1.1)
- part3 (part3.1)
- part4 (part4.1)
- part6 (part6.1)
- part7 (part7.1)
- part8 (part8.1)
- part9 (part9.1)
- part10 (part10.1)
- part 11 (part 11.1)
- part12 (part12.1)
- part5 (part5.1)
- part3 (part3.2)
- Part4 (Part4.1)
- Part10 (Part10.1)
- Part10 (Part10.2)
- Part17 (Part17.1)
- Part17
 - xy 평면
 - yz 평면
 - zx 평면
- PartBody
- Part10 (Part10.4)
- Part10 (Part10.3)
- Part10
 - xy 평면
 - yz 평면
 - zx 평면
- PartBody
- Part8.2 (Part8.3)
- Part8.1 (Part8.1)
- Part8.1 (Part8.2)
- Part15 (Part15.2)

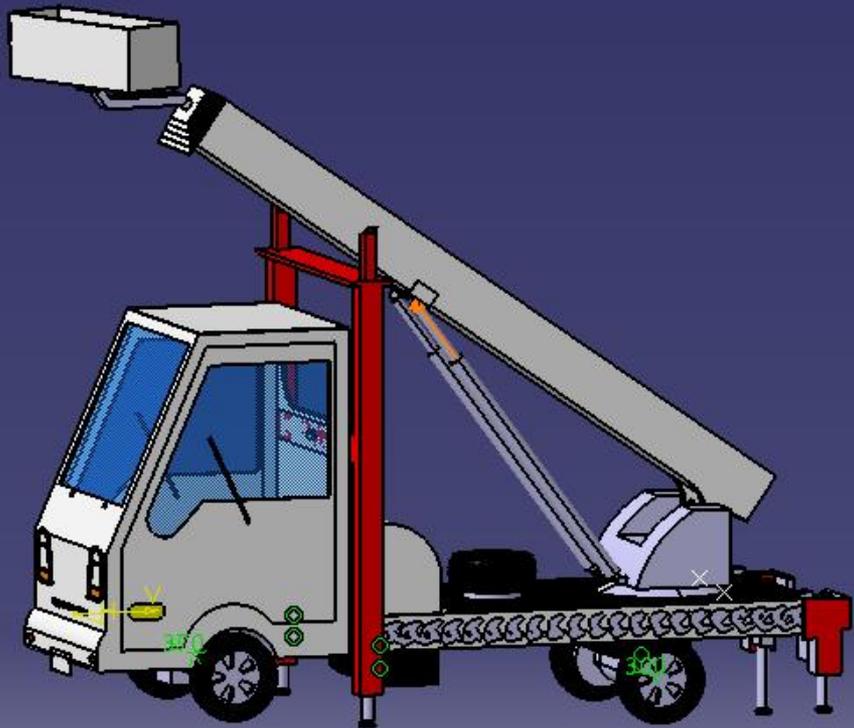


키네매틱스 결합

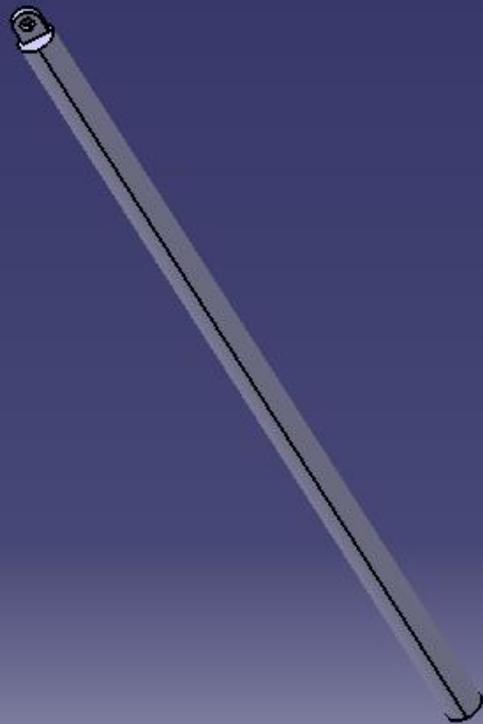


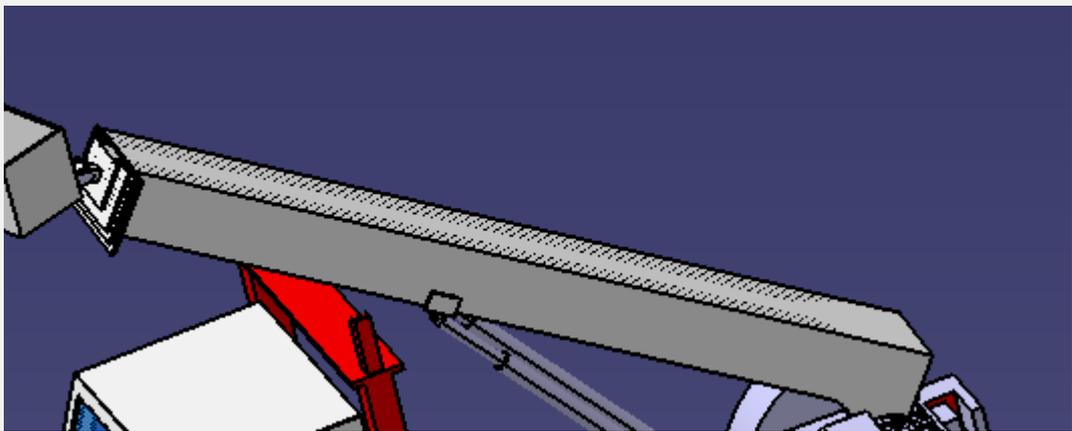
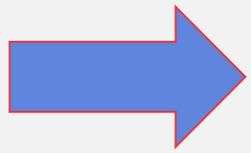
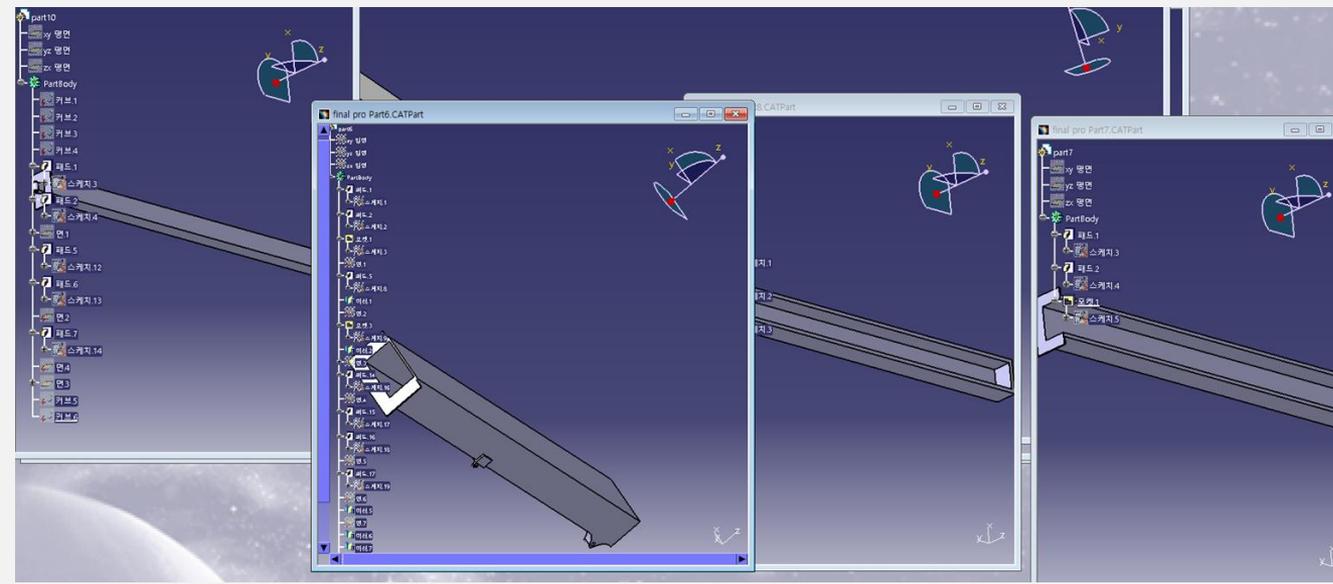


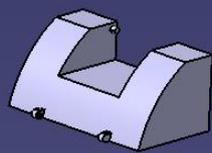
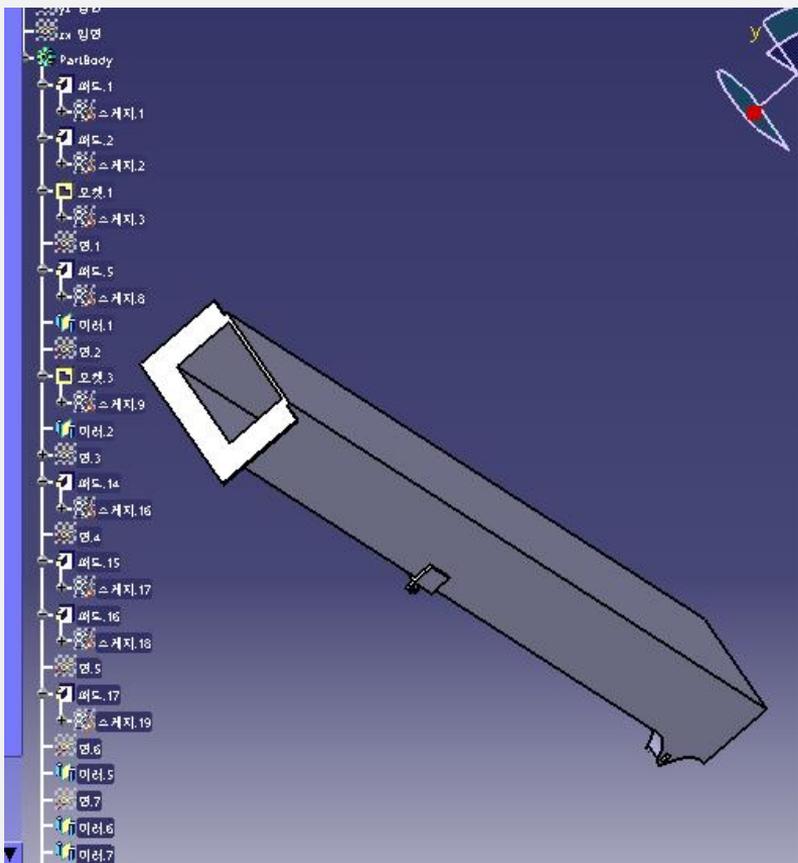


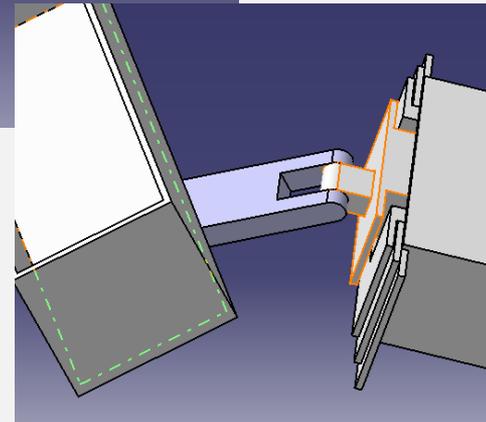
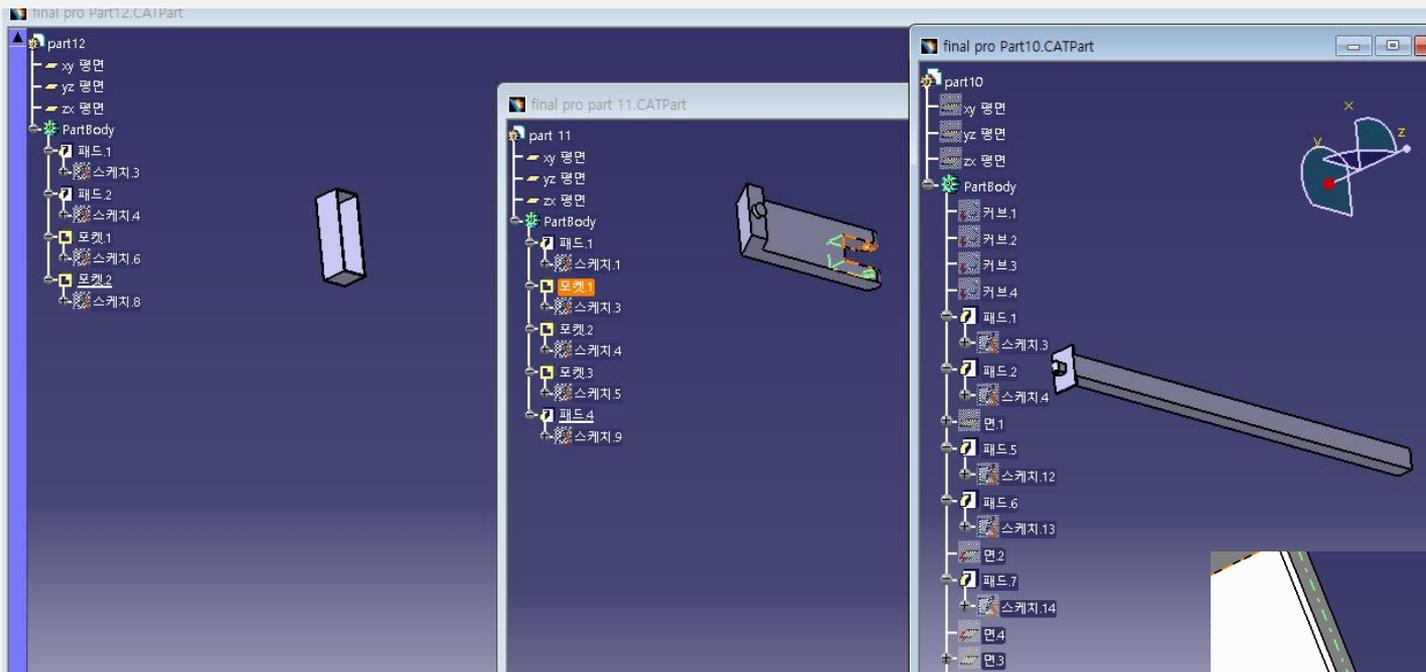


- xy 평면
- yz 평면
- zx 평면
- PartBody
- 패드.1
 - 스케치.3
- 패드.3
 - 스케치.5
- 서피스.1
- 포켓.1
 - 스케치.6
- 서피스.2
- 커브.1
- 커브.2



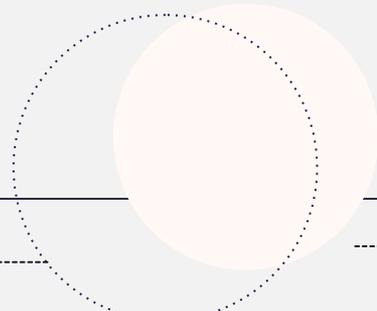


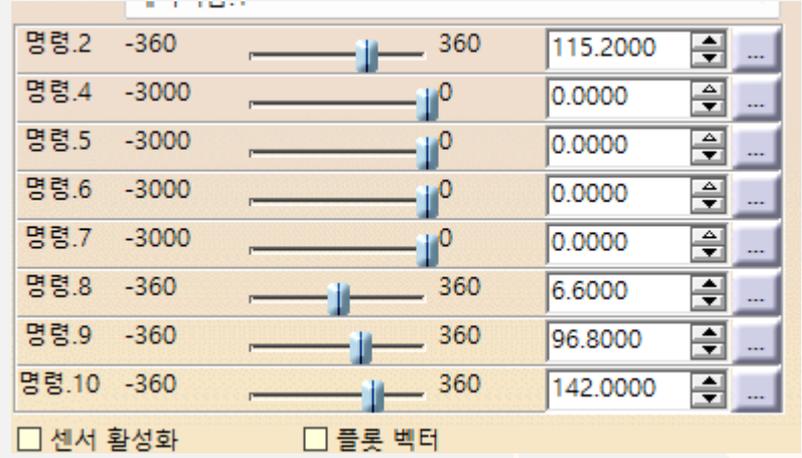
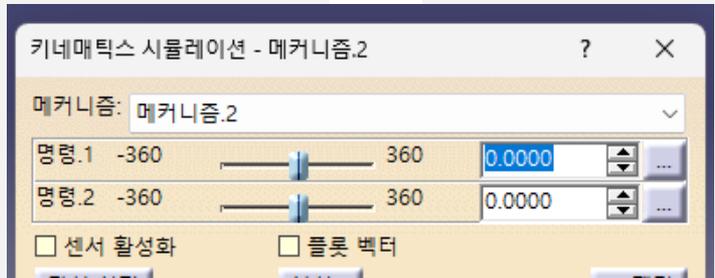
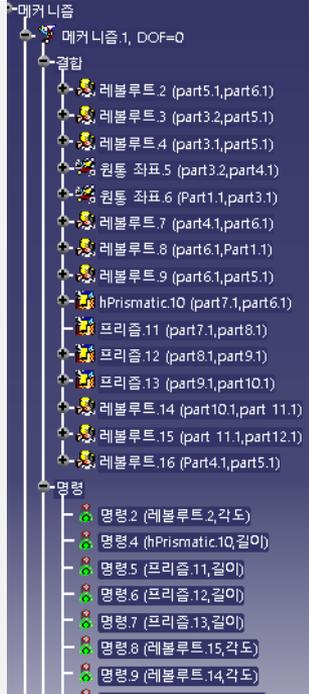
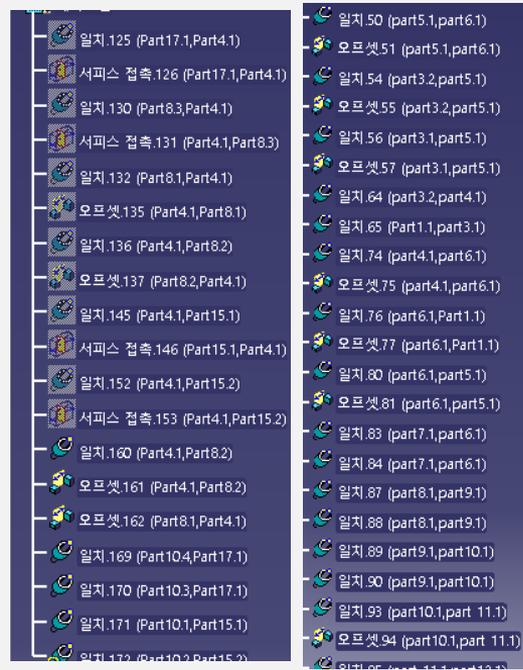


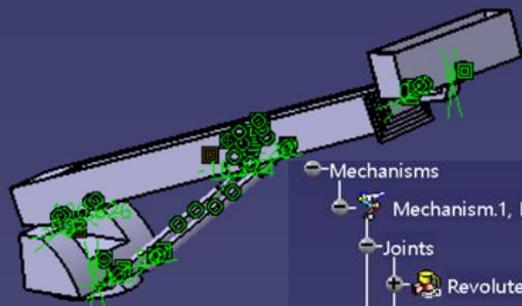


04

DMU KINEMATICS



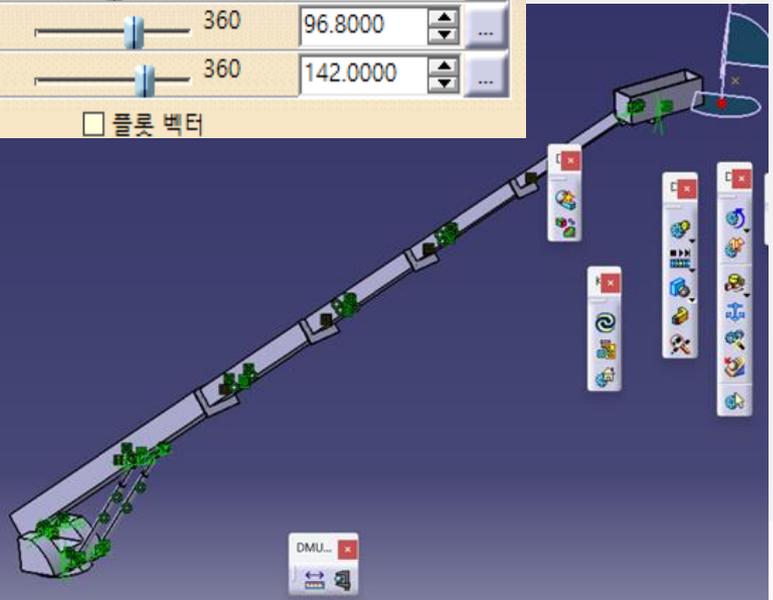




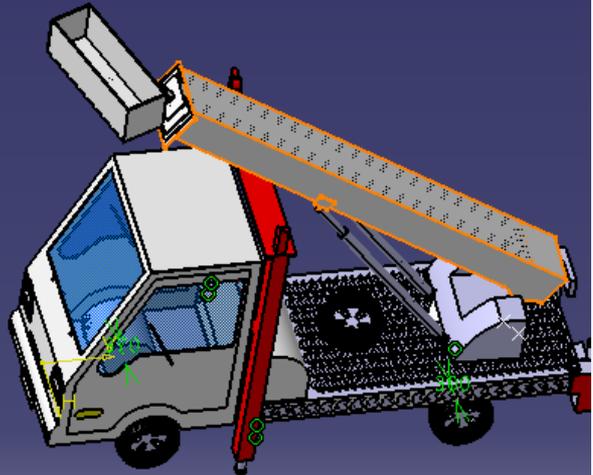
- Mechanisms
- Mechanism.1, DOF=0
- Joints
- Revolute.1 (Part2.2,part3.1)
- Revolute.2 (part3.2,Part2.2)**
- Revolute.3 (part6.1,Part2.2)
- Cylindrical.4 (part4.1,part3.2)
- Cylindrical.5 (Part1.1,part3.1)
- Revolute.8 (part6.1,Part2.2)
- Revolute.7 (part4.1,part6.1)
- Revolute.9 (Part1.1,part6.1)
- Prismatic.9 (part6.1,part7.1)
- Prismatic.10 (part7.1,part8.1)
- Prismatic.11 (part9.2,part8.1)
- Prismatic.12 (part10.1,part9.2)
- Revolute.13 (part 11.1,part10.1)
- Revolute.14 (part12.1,part 11.1)
- Revolute.15 (Part2.1,Part2.2)

명령.2	-360	360	115.2000	...
명령.4	-3000	0	0.0000	...
명령.5	-3000	0	0.0000	...
명령.6	-3000	0	0.0000	...
명령.7	-3000	0	0.0000	...
명령.8	-360	360	6.6000	...
명령.9	-360	360	96.8000	...
명령.10	-360	360	142.0000	...

센서 활성화 플롯 벡터



- Product1
 - Part1 (Part1.1)
 - part3 (part3.1)
 - part4 (part4.1)
 - part4
 - part6 (part6.1)
 - part7 (part7.1)
 - part8 (part8.1)
 - part9 (part9.1)
 - part10 (part10.1)
 - part 11 (part 11.1)
 - part12 (part12.1)
 - part5 (part5.1)
 - part3 (part3.2)
 - Part4 (Part4.1)
 - Part17 (Part17.1)
 - Part10 (Part10.4)
 - Part10 (Part10.3)
 - Part8.2 (Part8.3)
 - Part8.1 (Part8.1)
 - Part8.1 (Part8.2)
 - Part15 (Part15.1)
 - Part15.1 (Part15.2)
 - Part10 (Part10.1)
 - Part10 (Part10.2)
- 제약조건
- 어플리케이션





05

DMU Kinematics: Video

유튜브 링크 : [사다리차 \(youtube.com\)](https://www.youtube.com)

Reference, 참고자료

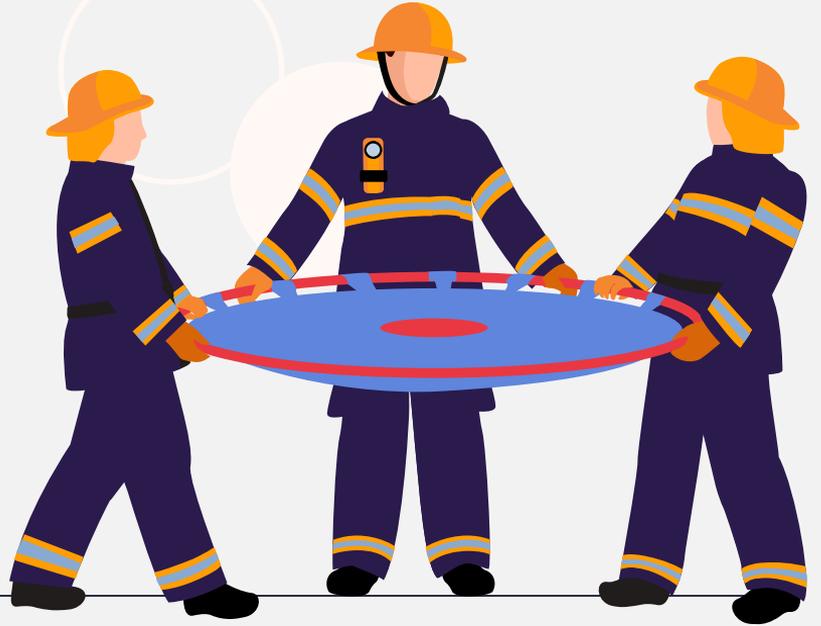
[바로고사다리차스카이차 \(safecall.kr\)](https://safecall.kr)
[2024 봉고3 EV : 네이버 검색 \(naver.com\)](https://naver.com)

[그래픽]2018년 인구주택조사...아파트거주 가구 비중 50% 첫 돌파 :: 공감언론 뉴시스통신사 :: (newsis.com)

아파트 등 공동주택 1400만호...전체 주택 77.2% 차지 < 종합 < 기사본문 - 아파트관리신문 (aptn.co.kr)

06

Difficulties



치수를 차량 실제 치수에 맞추려 보니 CATIA에 오류가 자주 발생
스케일 조절이 필수적이다

팀원들간의 소통오류로 스케일이 달랐는데 그때 'SCALE'함수를 이용하여 치수를 조절하고 어셈블리를 진행하려 했으나 constraint coincident가 진행되지 않아 제작에 어려움 발생





Q&A

