

2013.12.6

Forklift 3D design



카톡(Cartalk)

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| 201007529 | 신웅희

We communicate with cars!

Introduction

카 톡 (Car talk)

**스마트폰에서 주로 쓰는 카톡으로
부터 카톡을 Cartalk으로 함으로써
차에 대해 이야기하고
차로 소통하자는 의미**



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01. 준비

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■ 지게차란?



- 지게차(Fork Lift Truck)는 화물을 실어 옮기는데 쓰는 특수차량
- 미국 클라크사에서 1922년 최초로 제작
- 수동 유압식부터 시작해 현재는 전동지게차로 이용

01. 준비

■ 선정 이유

- 기존 차량의 기능 뿐만아니라 화물 운송 기능
- 간편한 파트 분배 및 어셈블리 가능
- 다양한 Kinematic 기능 구현 가능

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02. 설계목표

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■ Part Design 통한 외관 모델링

■ Kinematics 통한 조향 및 운동 도시

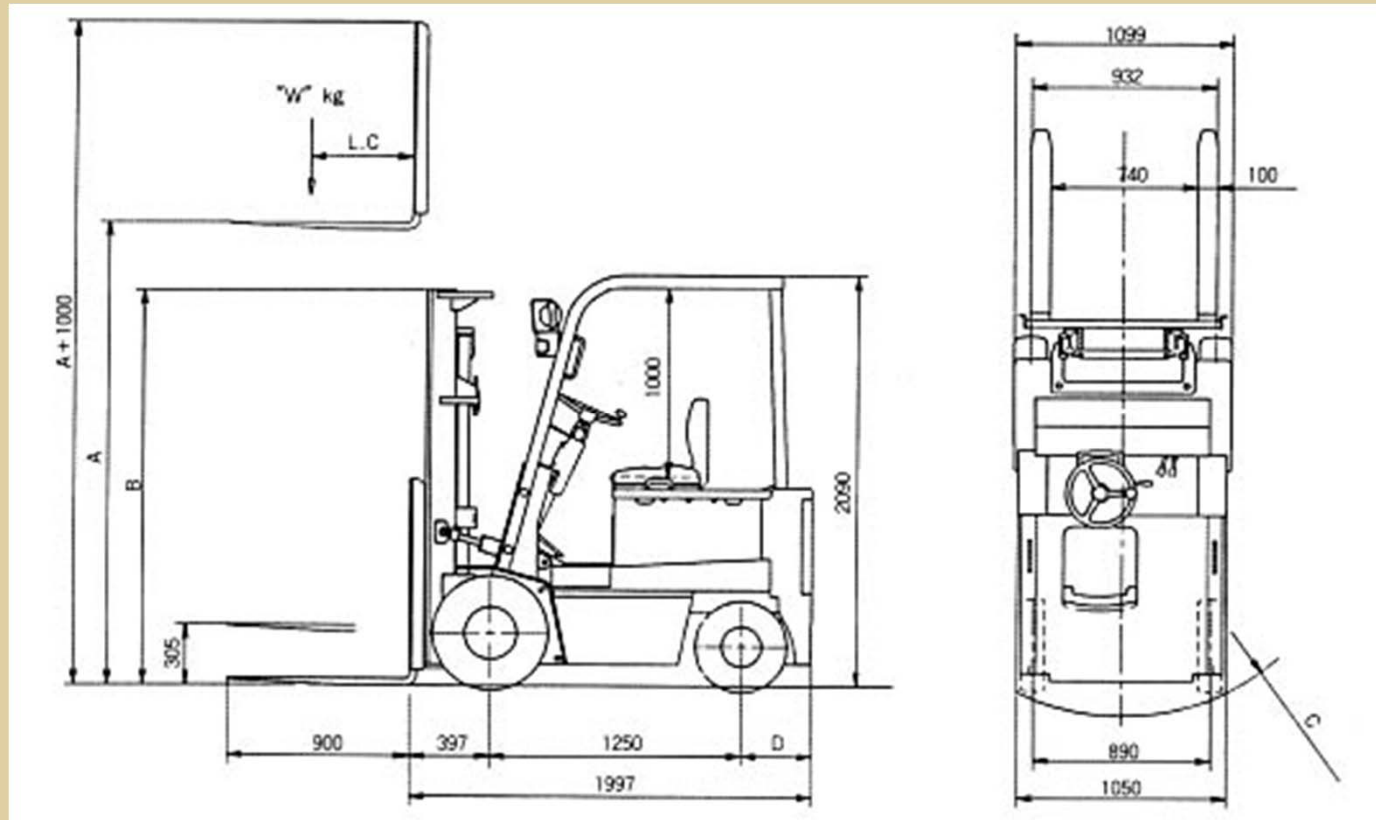
■ 3D 모델링 통한 Drafting

■ 설계조건

- 최소선회반경 1790mm
- 전장 1997mm
- 전폭 1099mm
- 높이(mast) 1995mm
- 축간거리 1250mm

02. 설계목표

■ 참고 도면



동명지게차, TEC-15

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03. 지게차 설계

■ 설계과정

1. Part Design

2. Assembly

3. Kinematics

4. Painting

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1. Part Design



2. Assembly



3. Kinematics



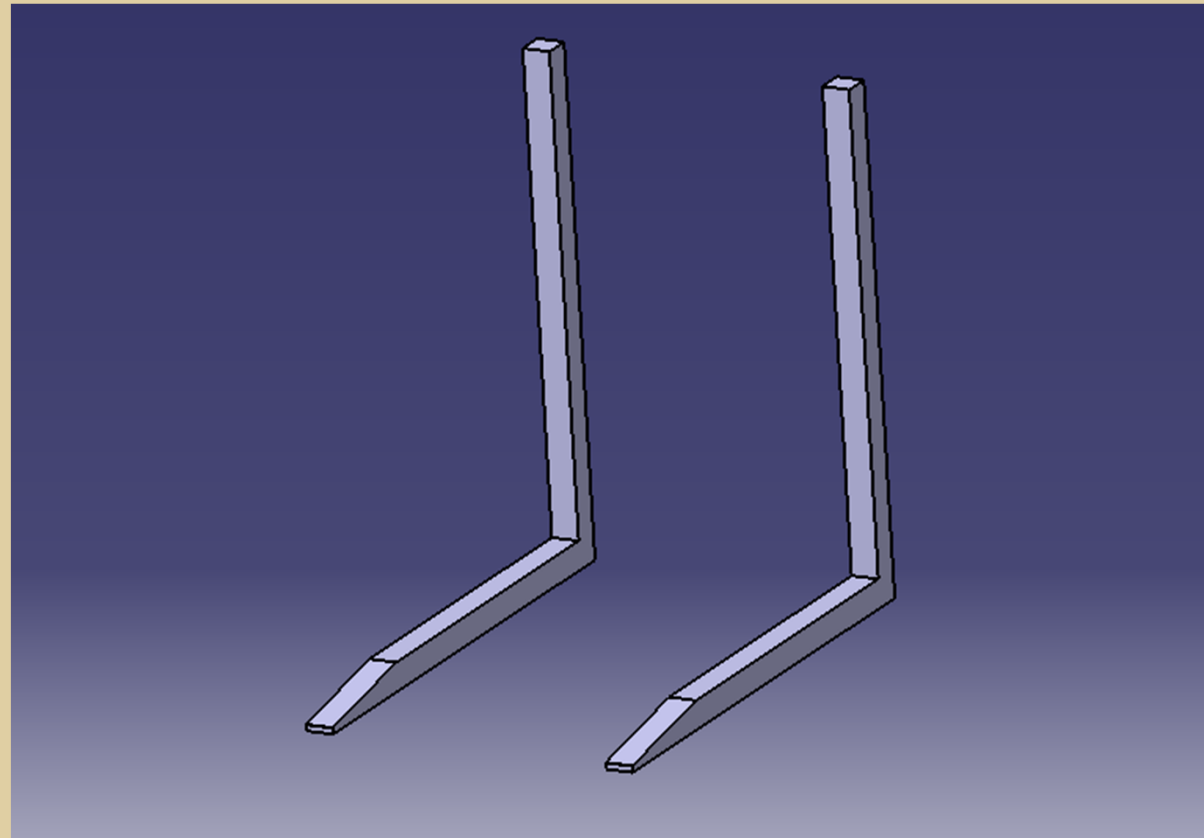
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03. 지게차 설계

1. Fork Design



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1. Part Design

Fork



Body



Steering wheel

2. Assembly



3. Kinematics



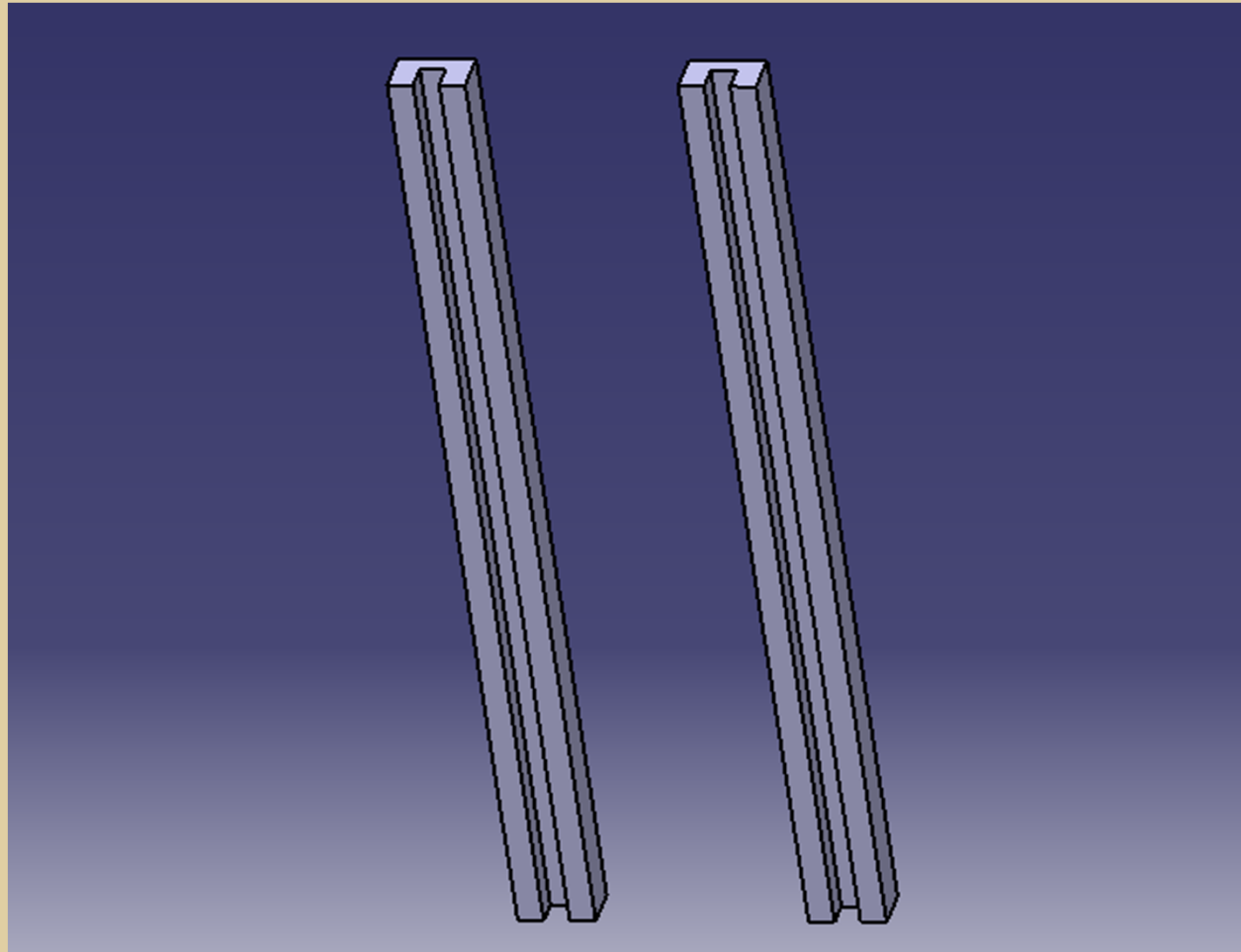
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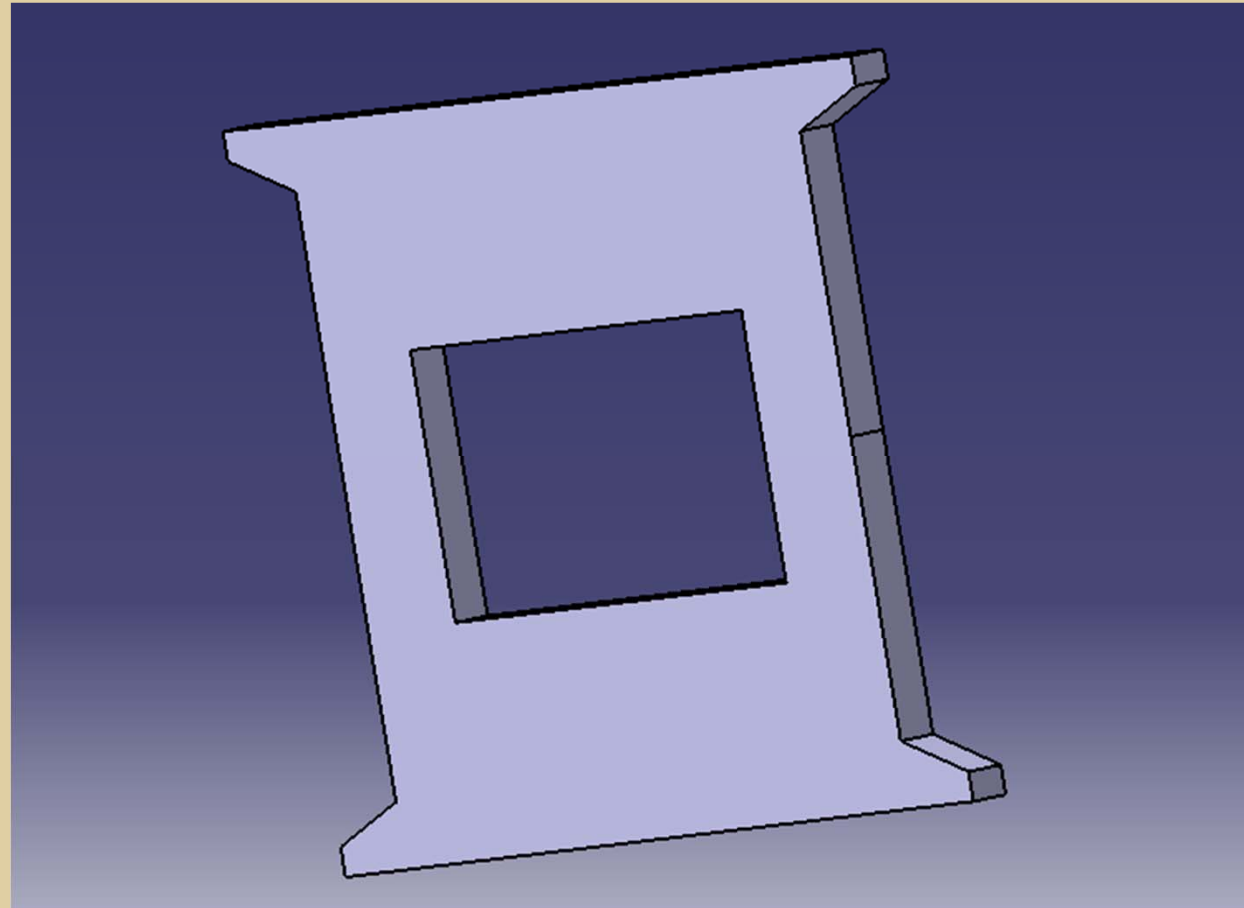
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Steering wheel

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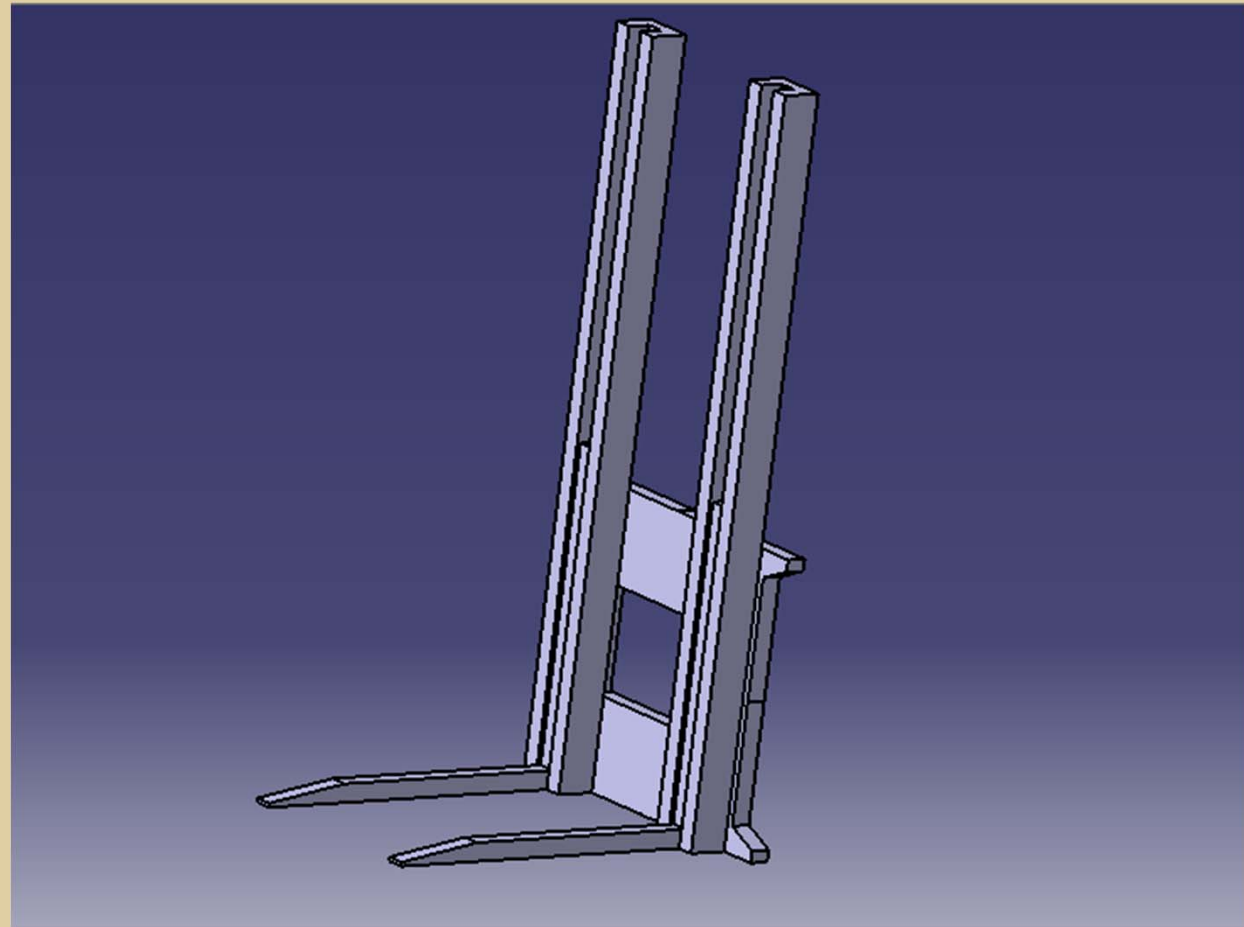
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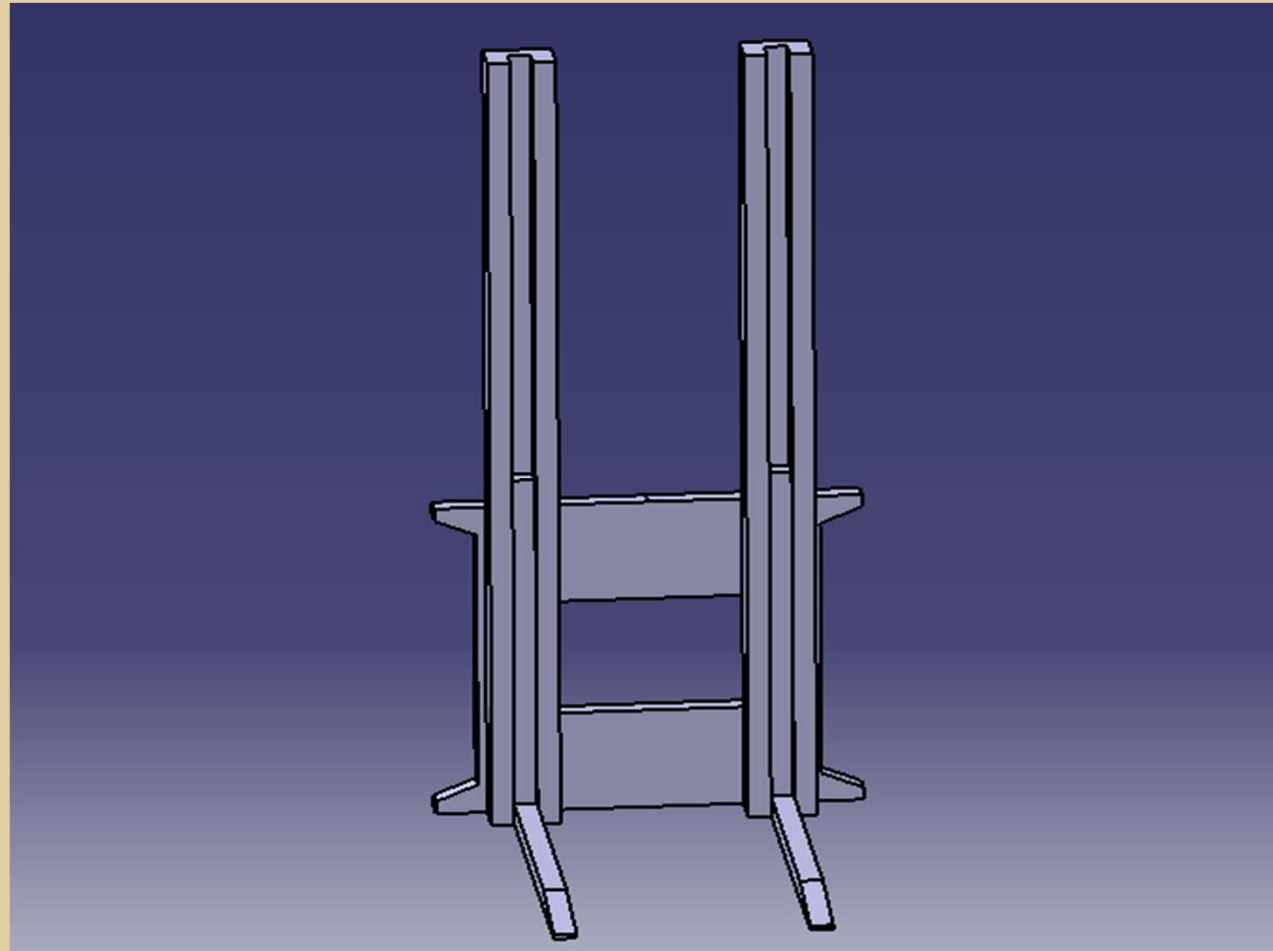
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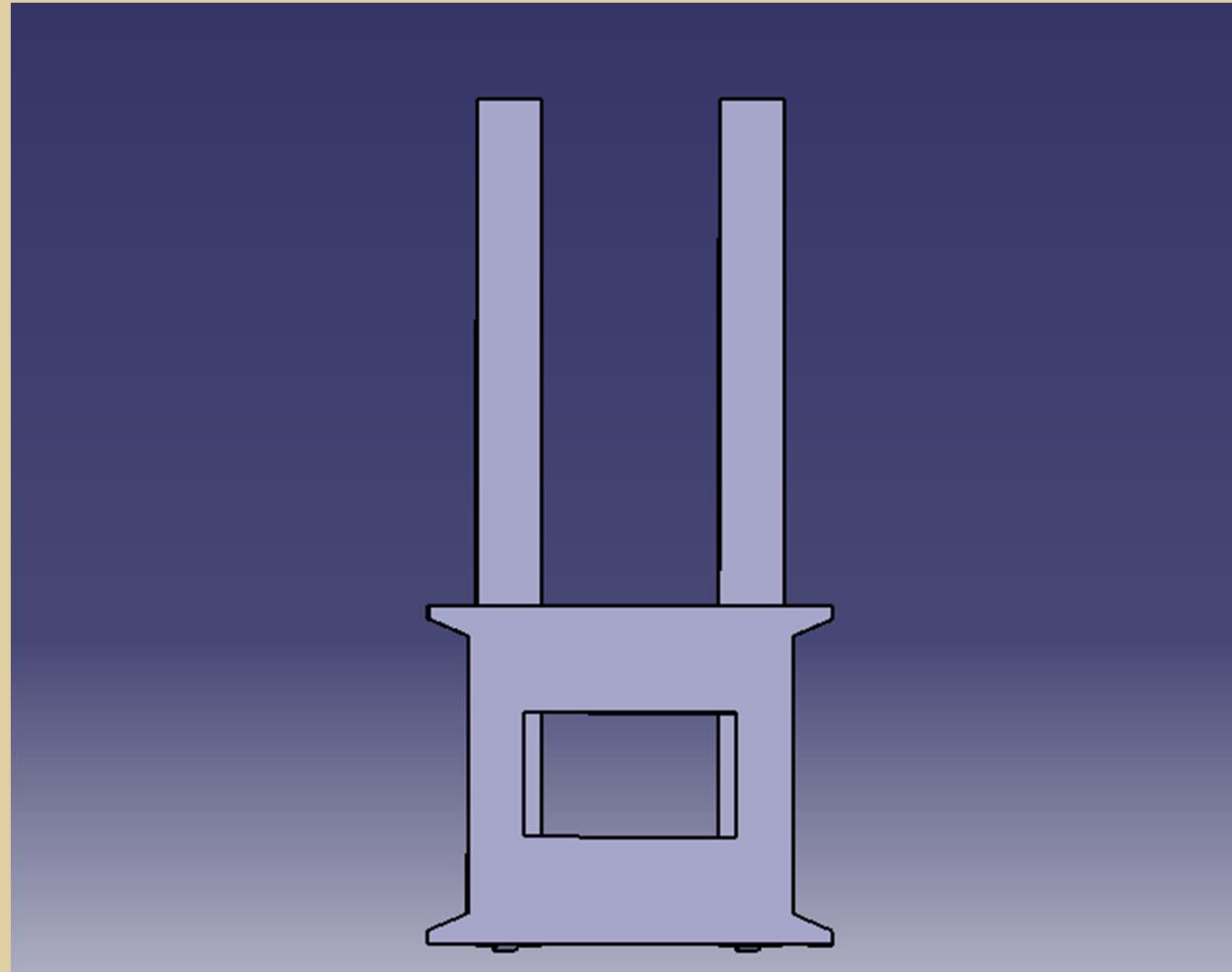
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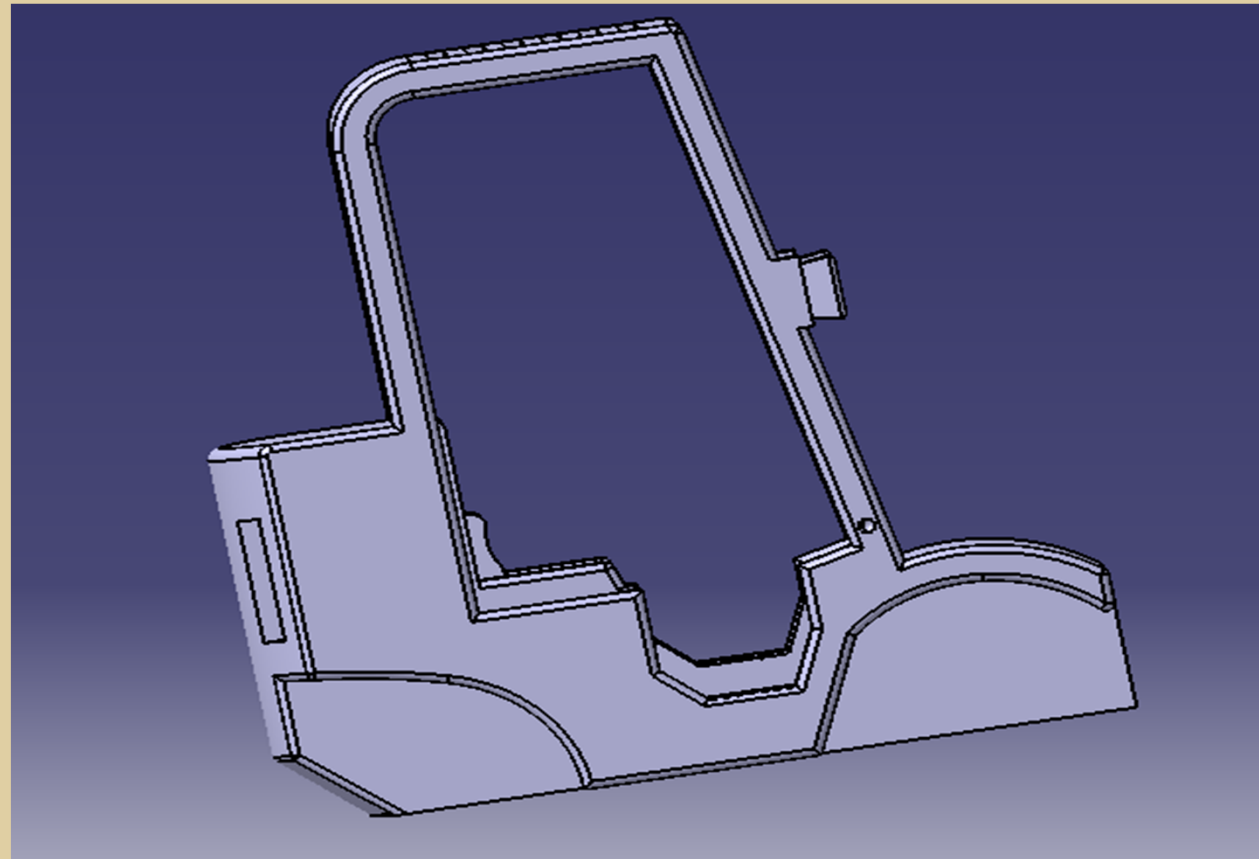
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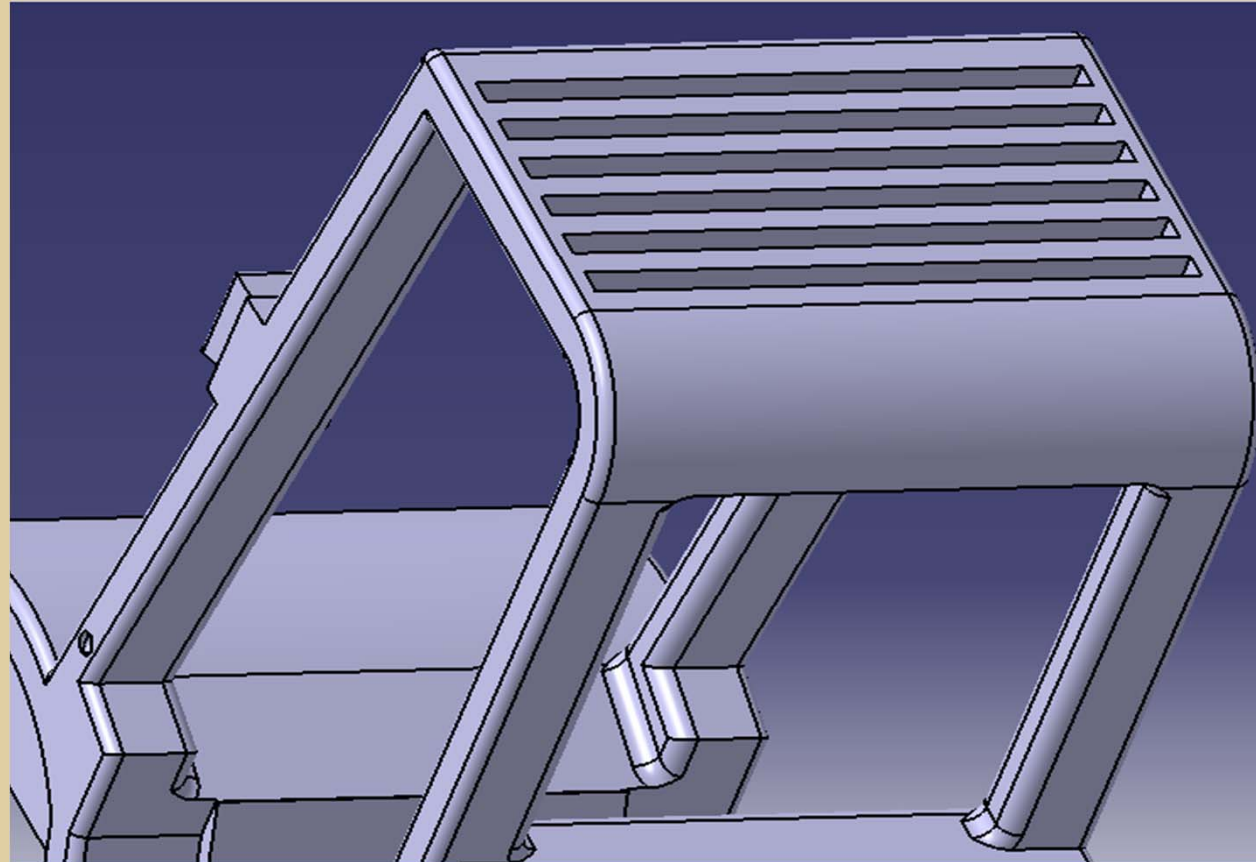
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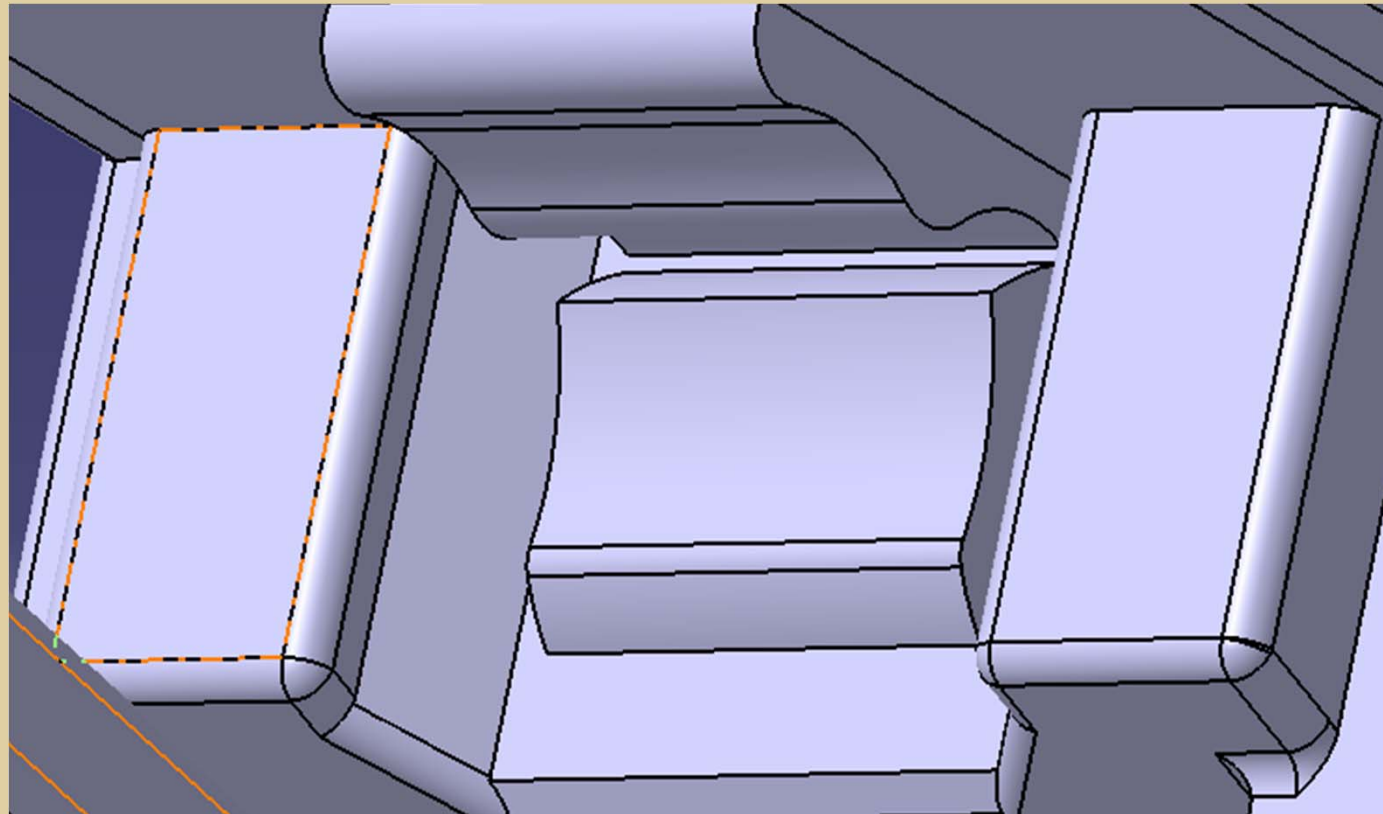
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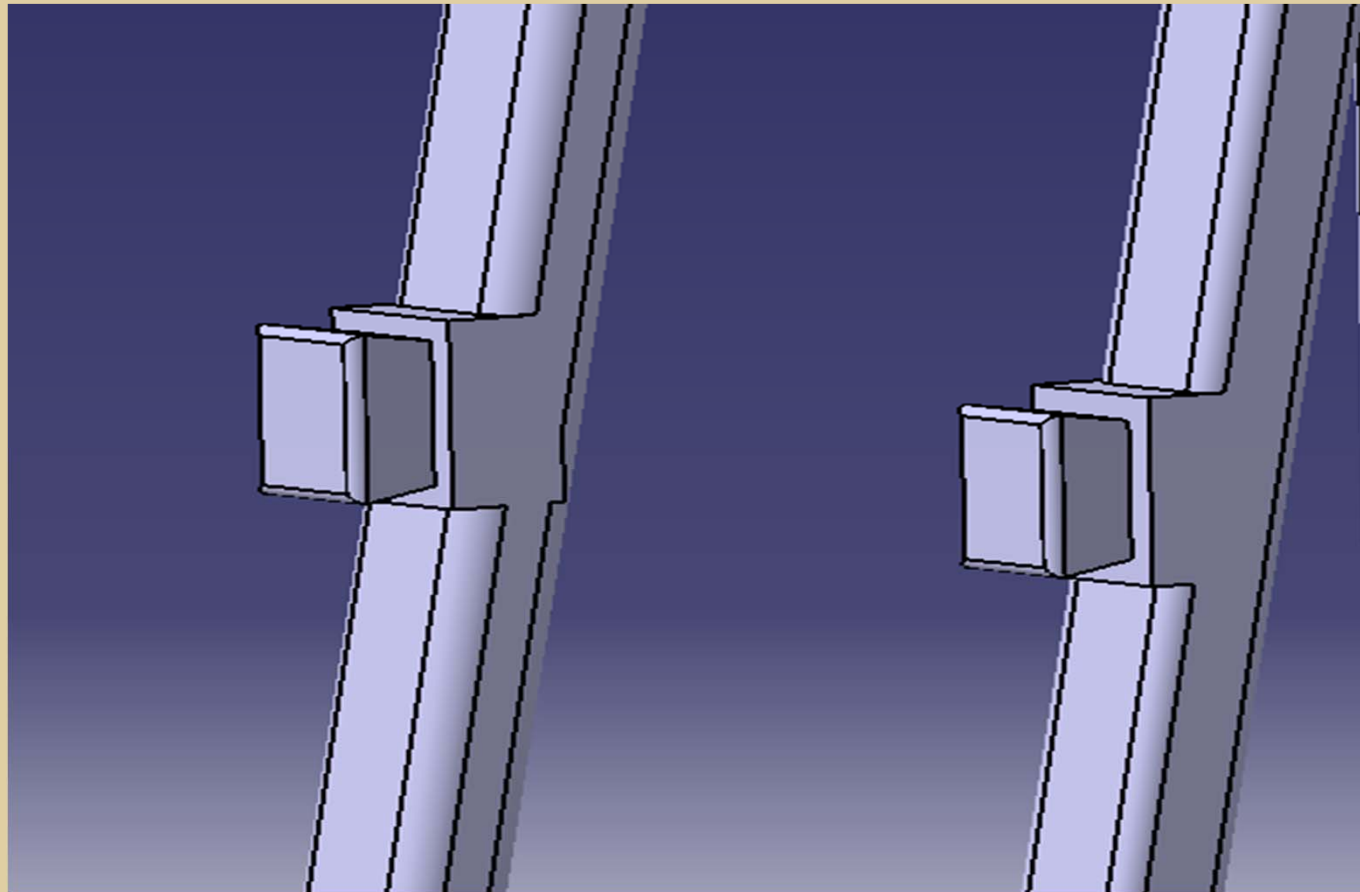
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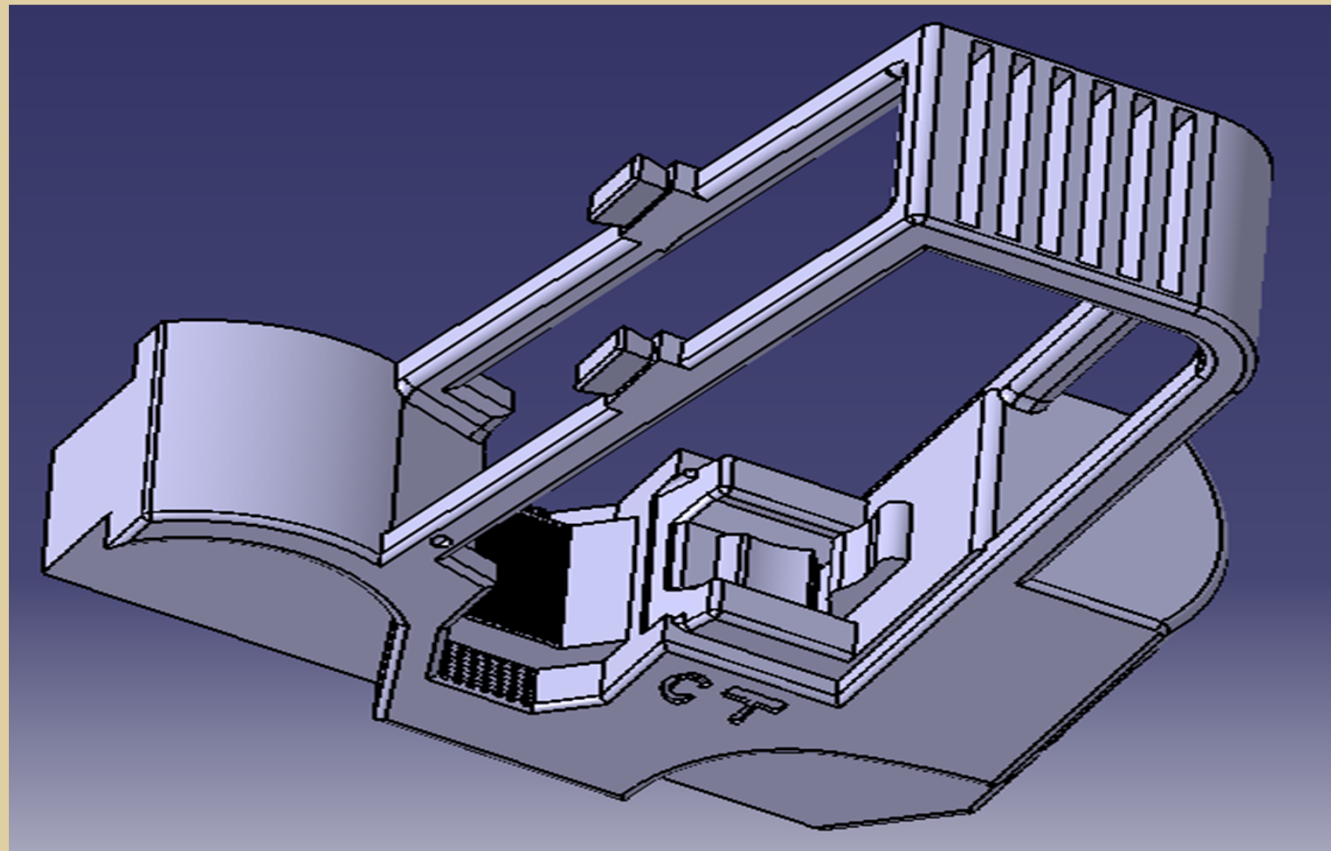
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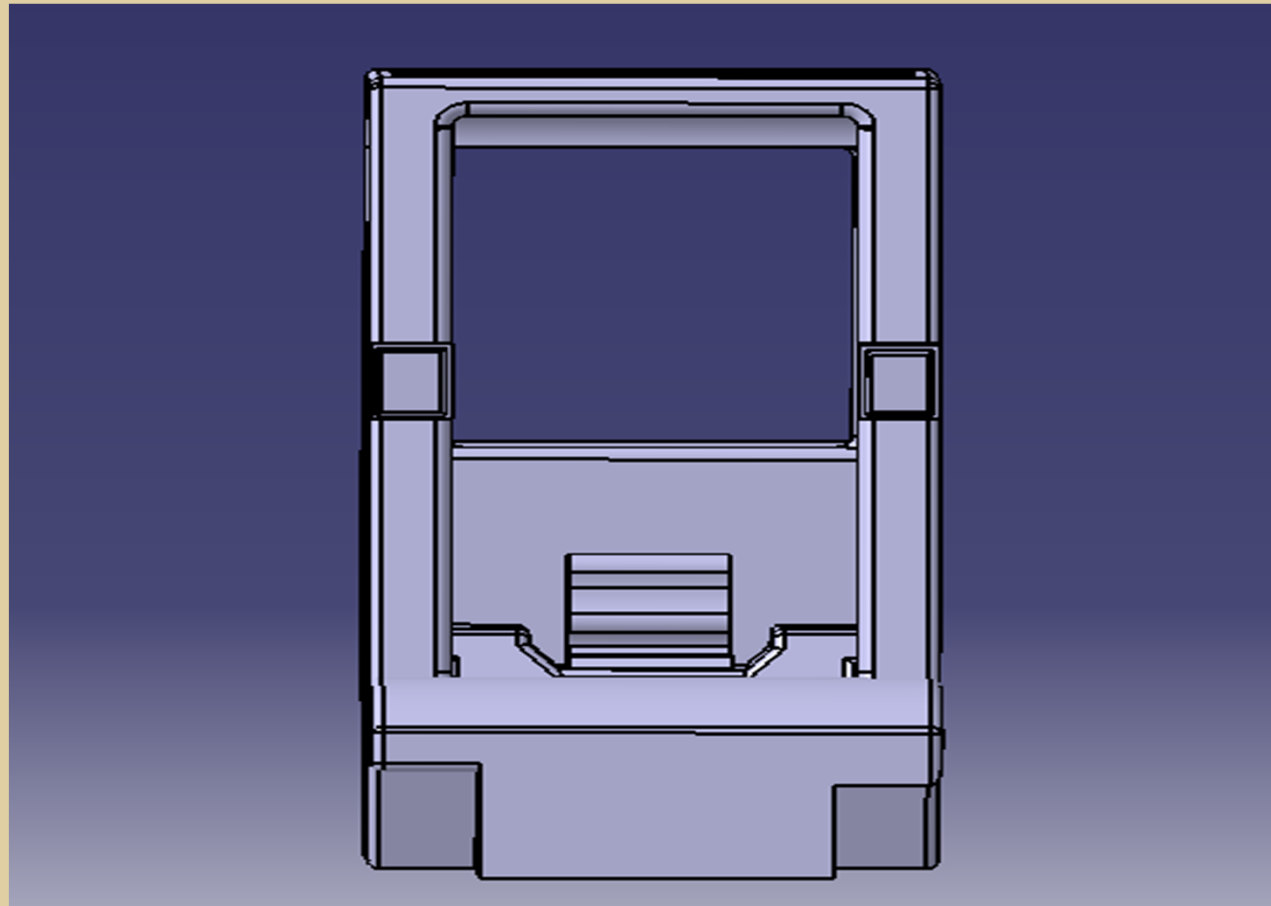
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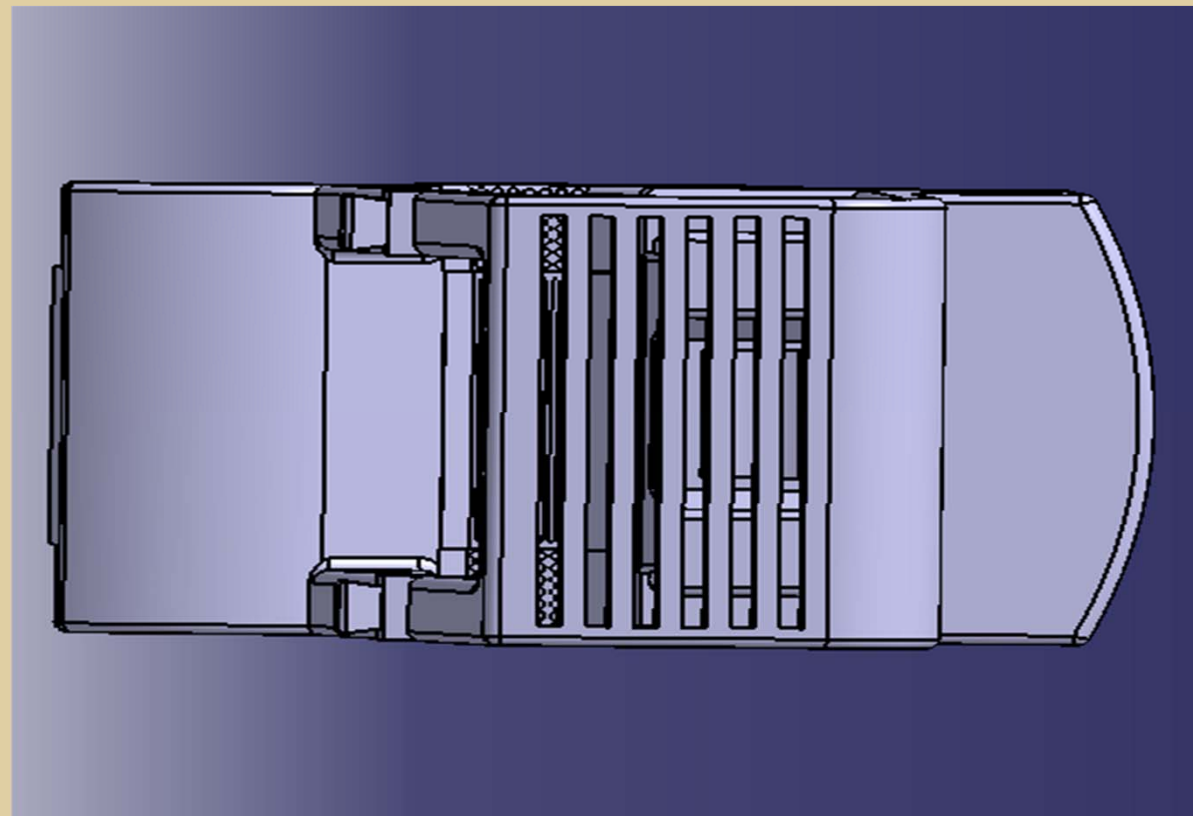
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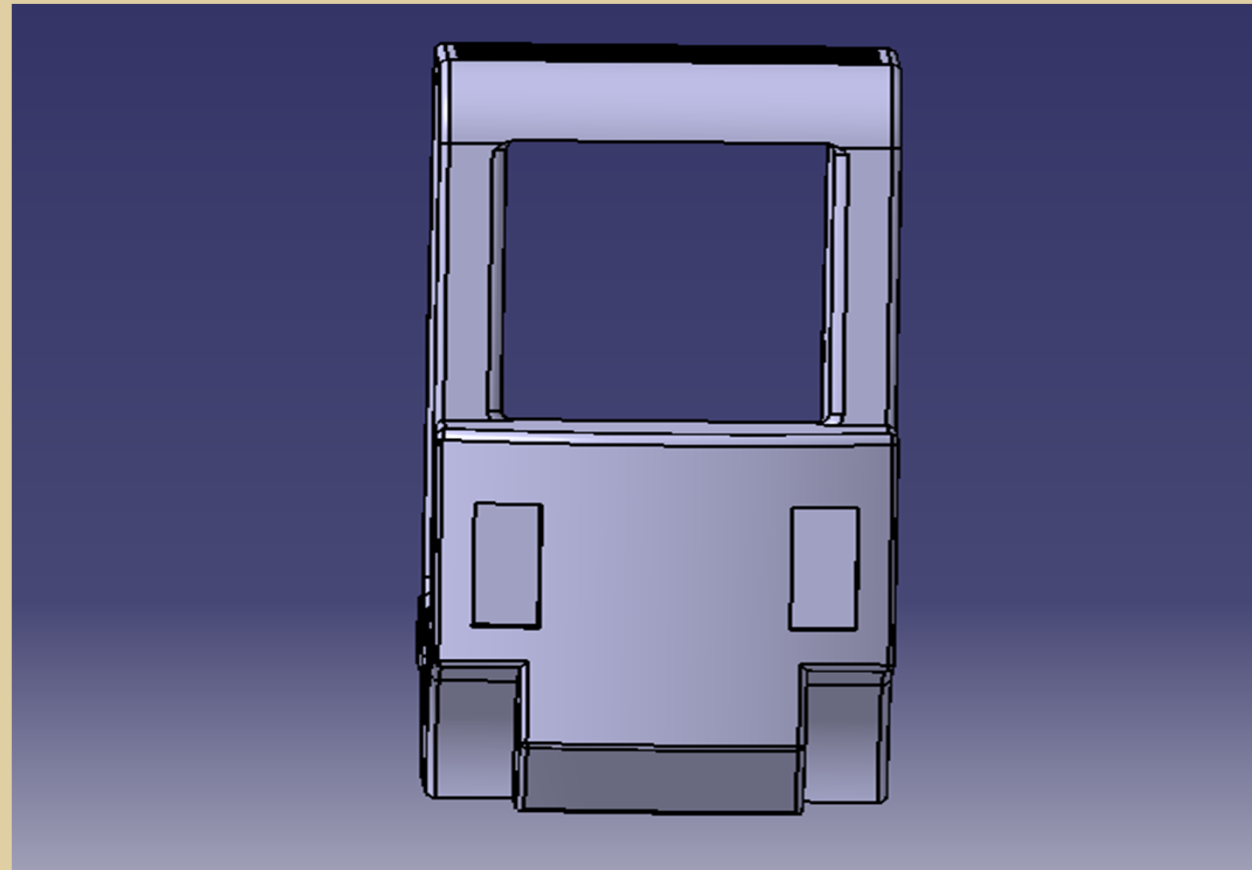
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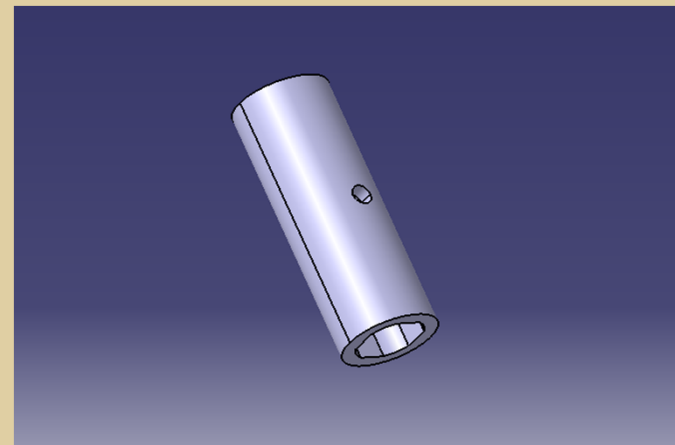
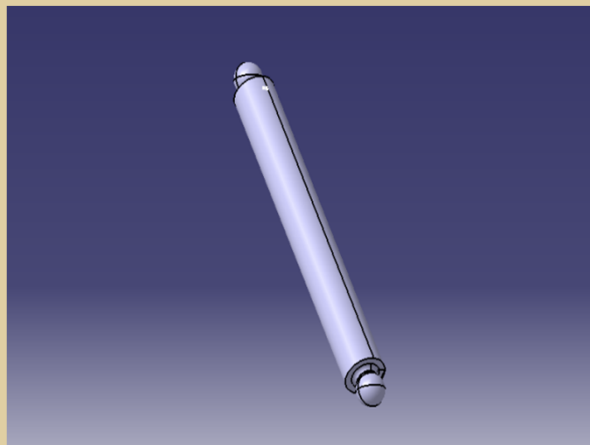
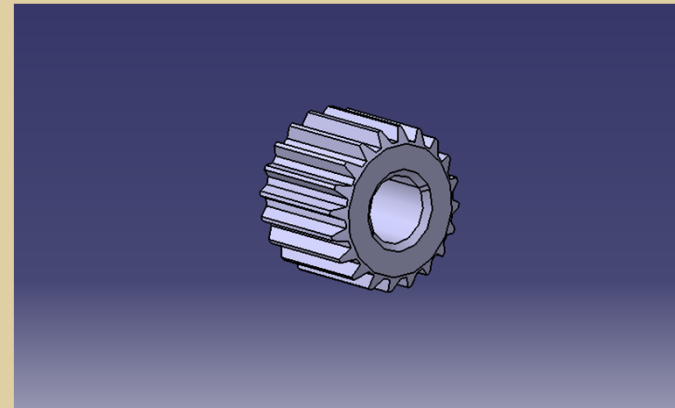
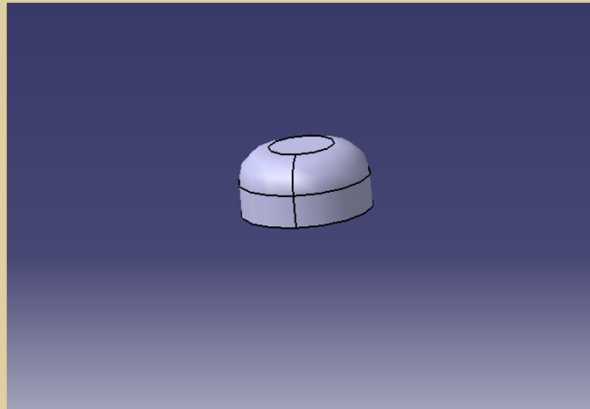
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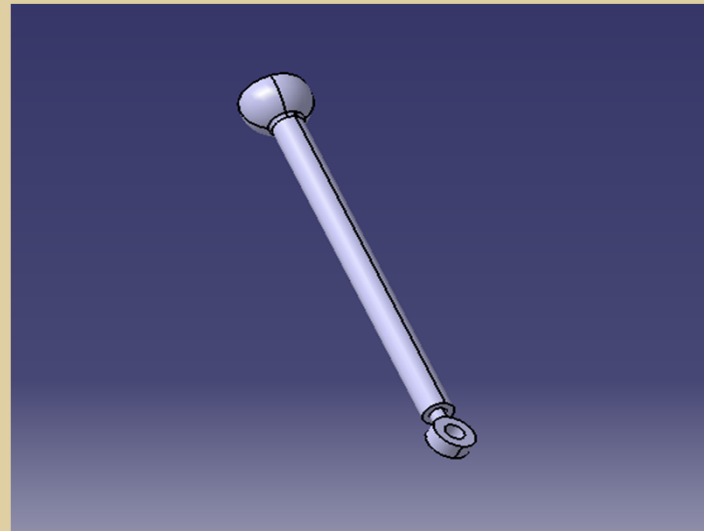
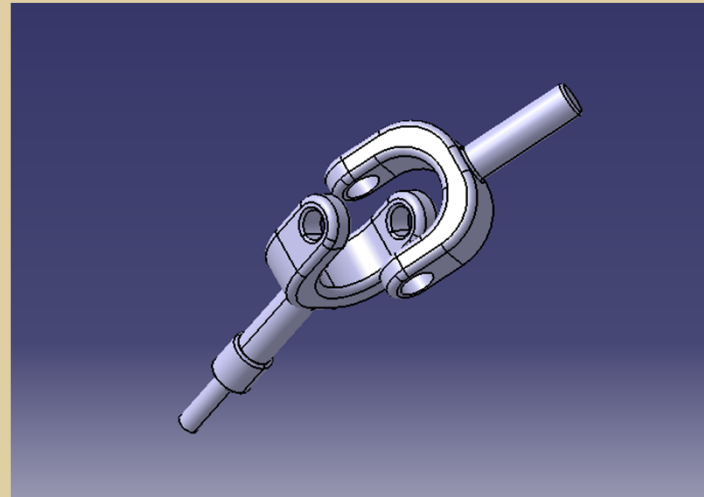
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03. 지게차 설계

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Fork

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Body

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Steering wheel

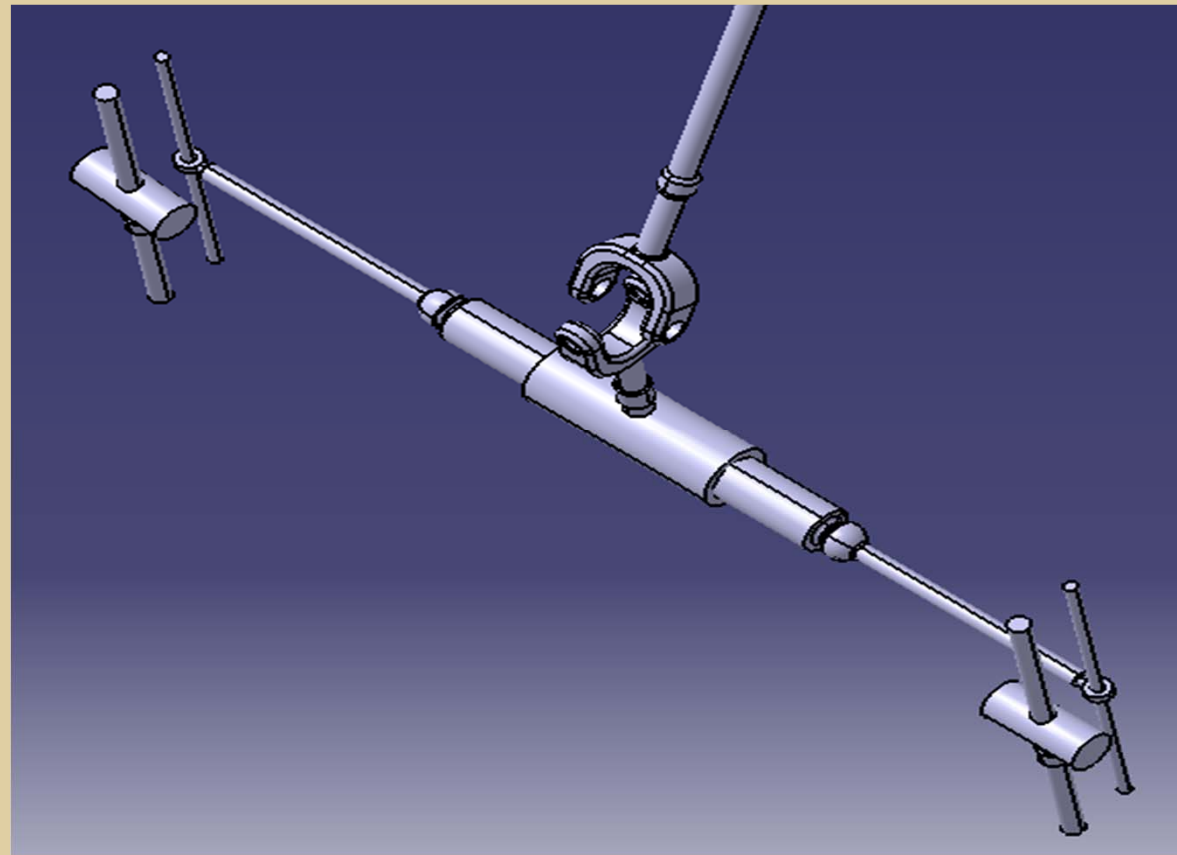
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3. Kinematics

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Body



Steering wheel

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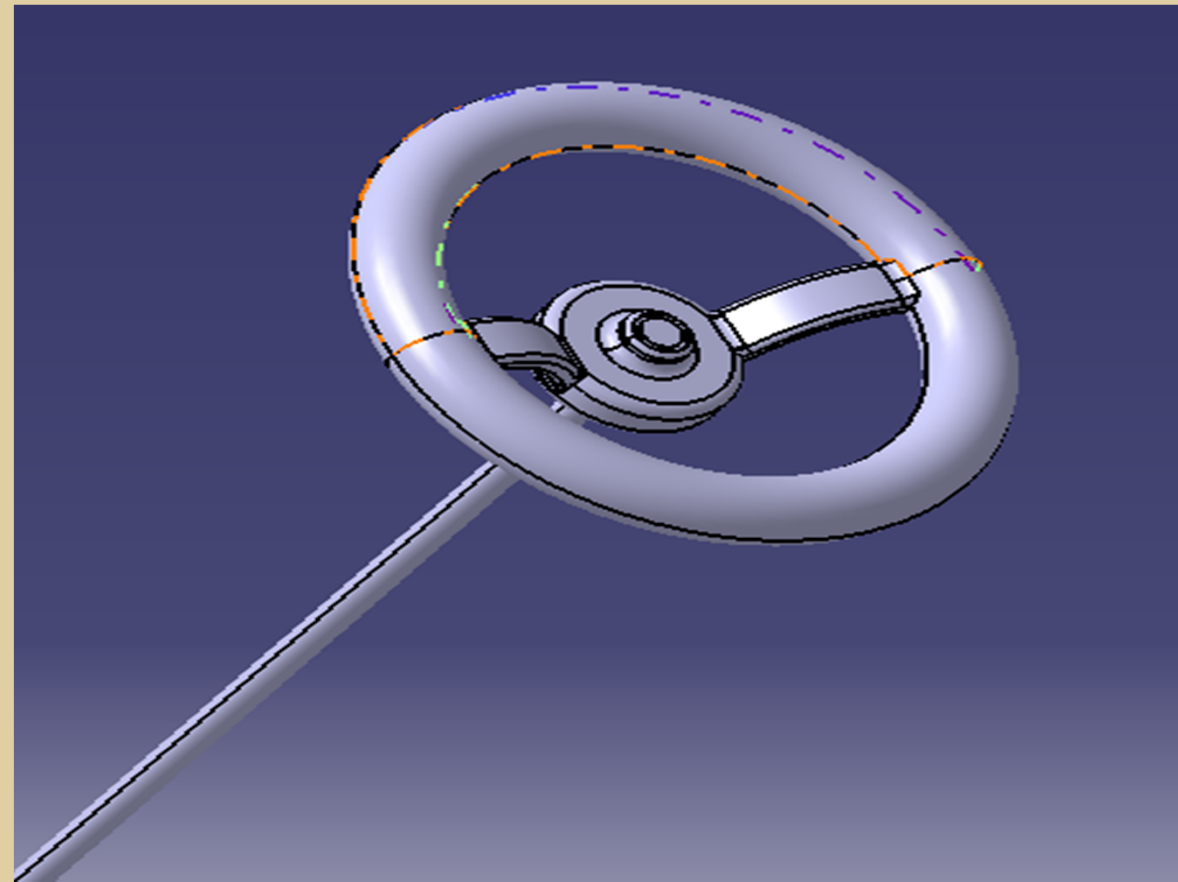
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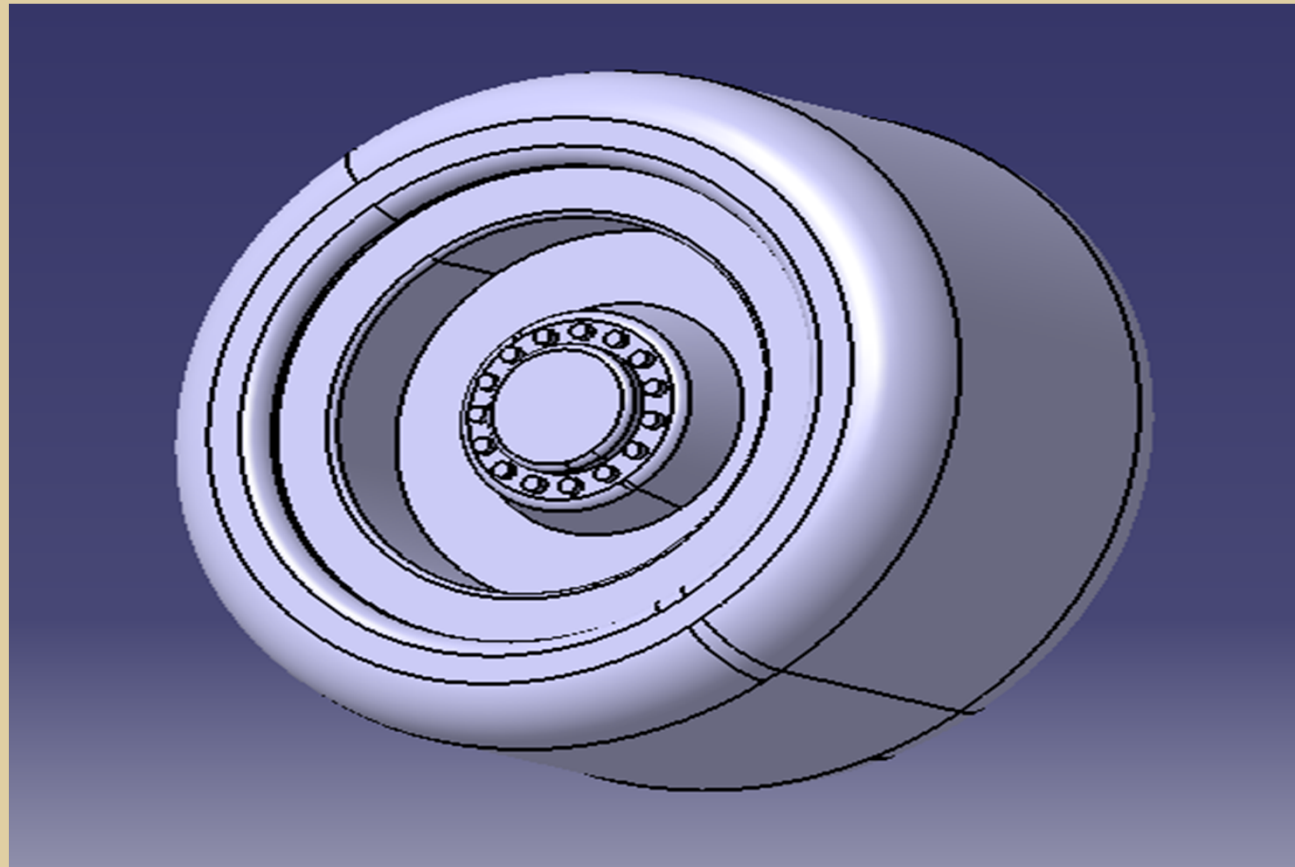
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3. Steering wheel



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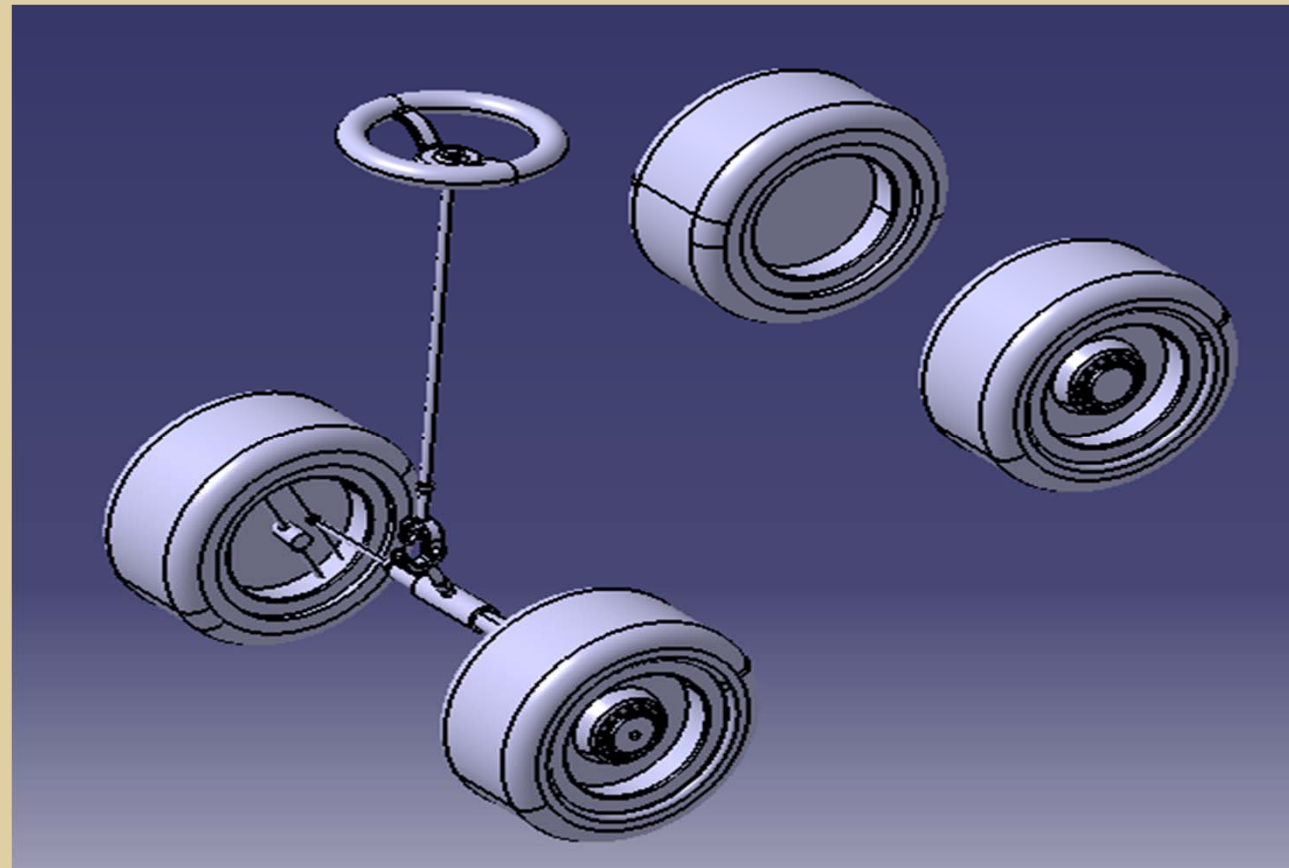
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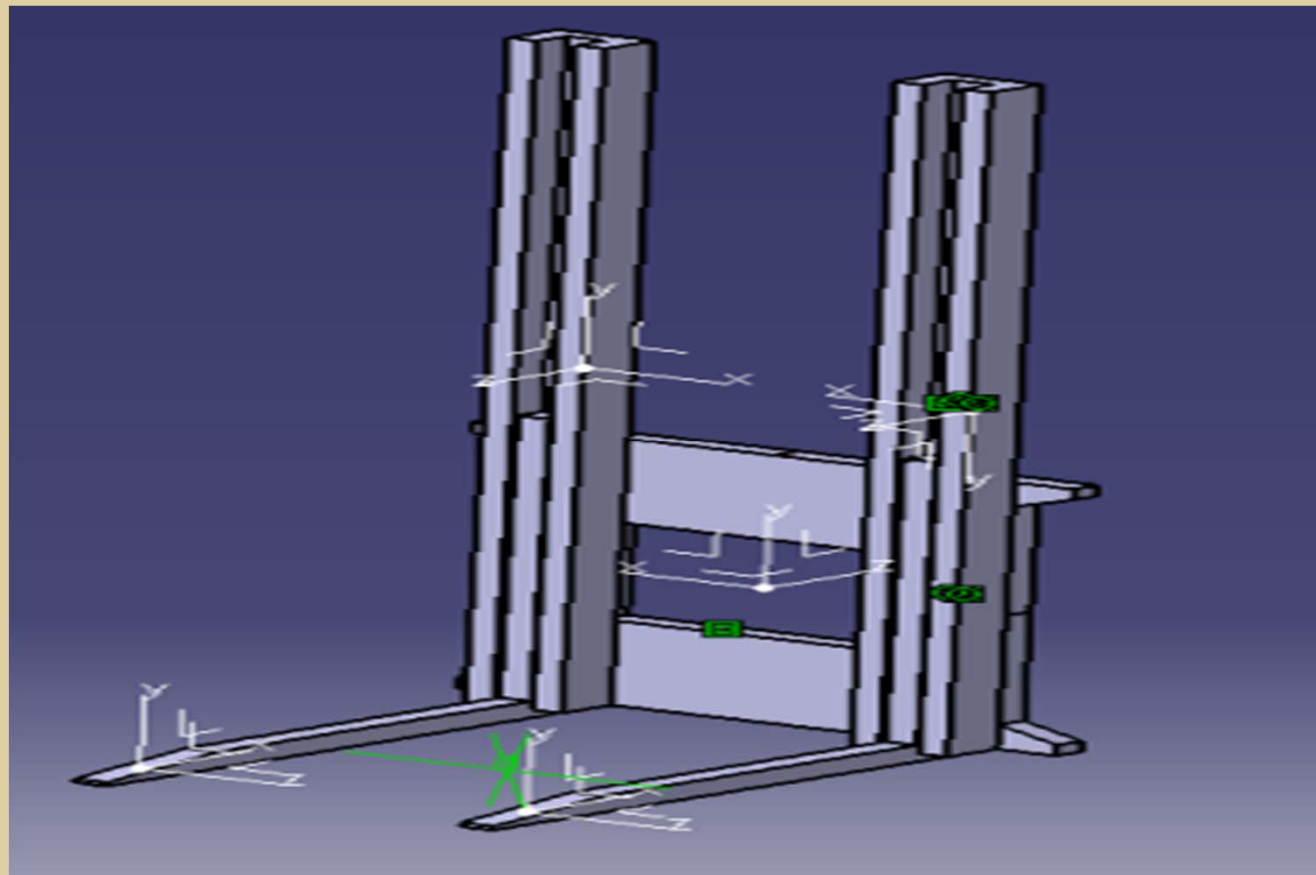
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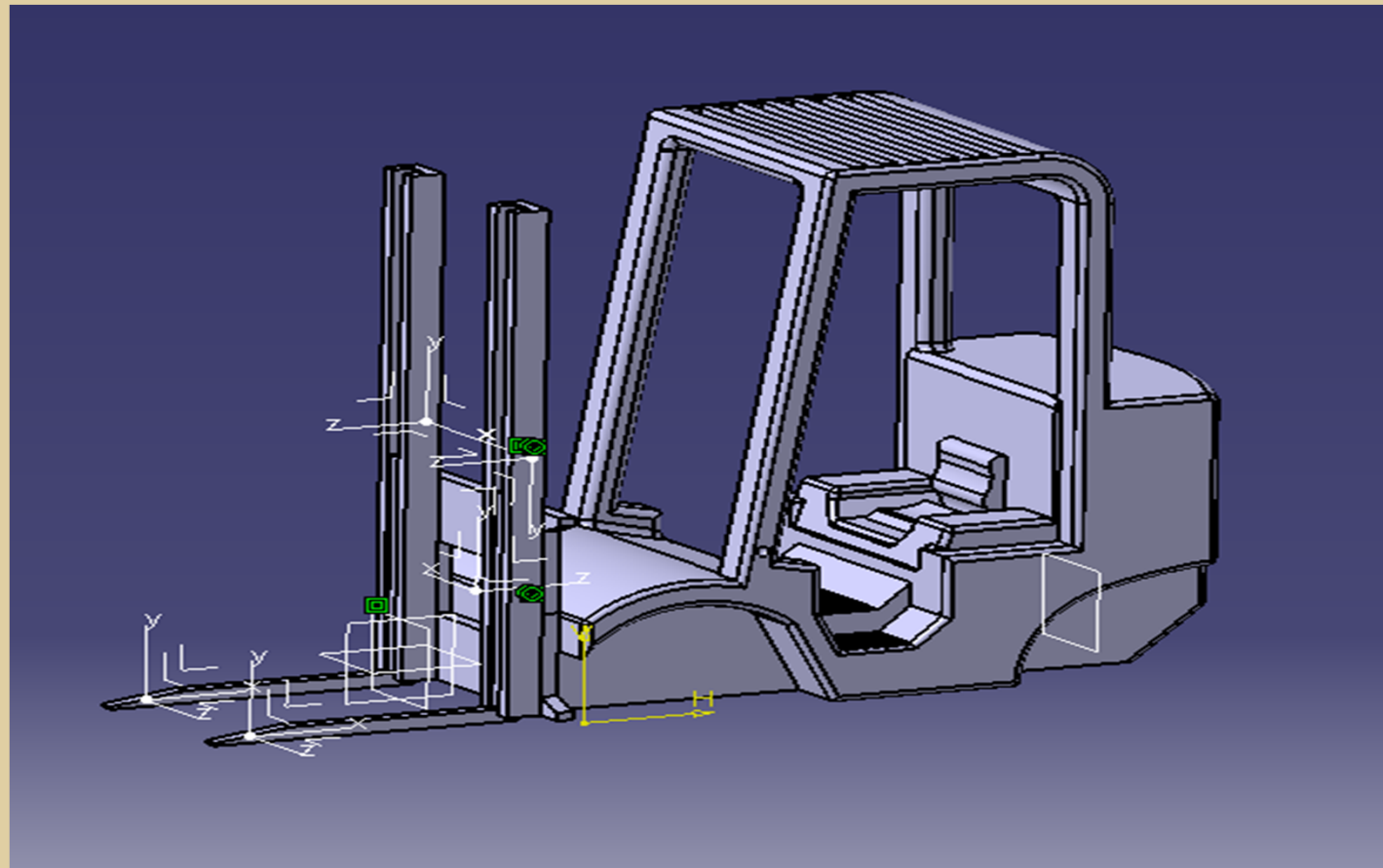
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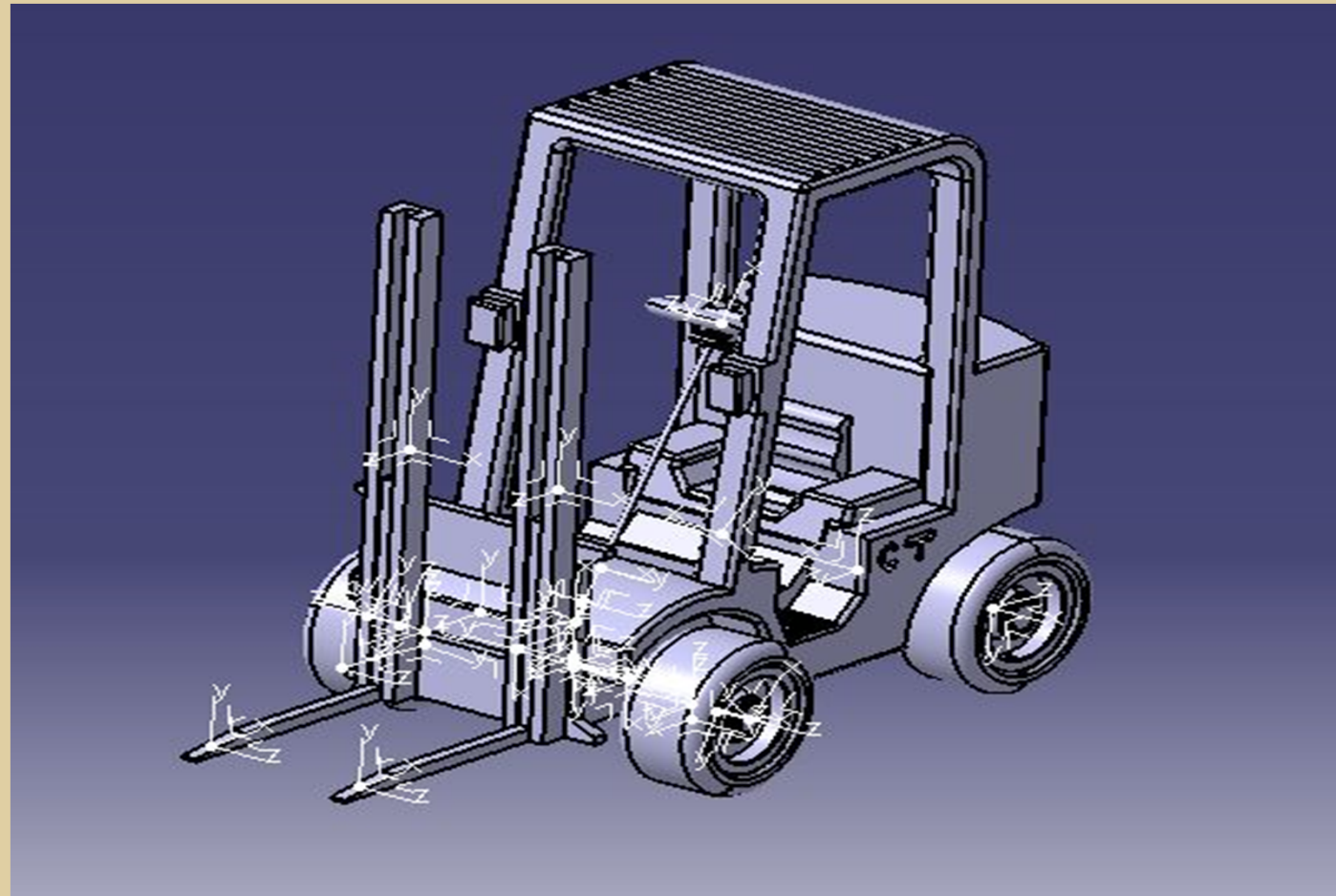
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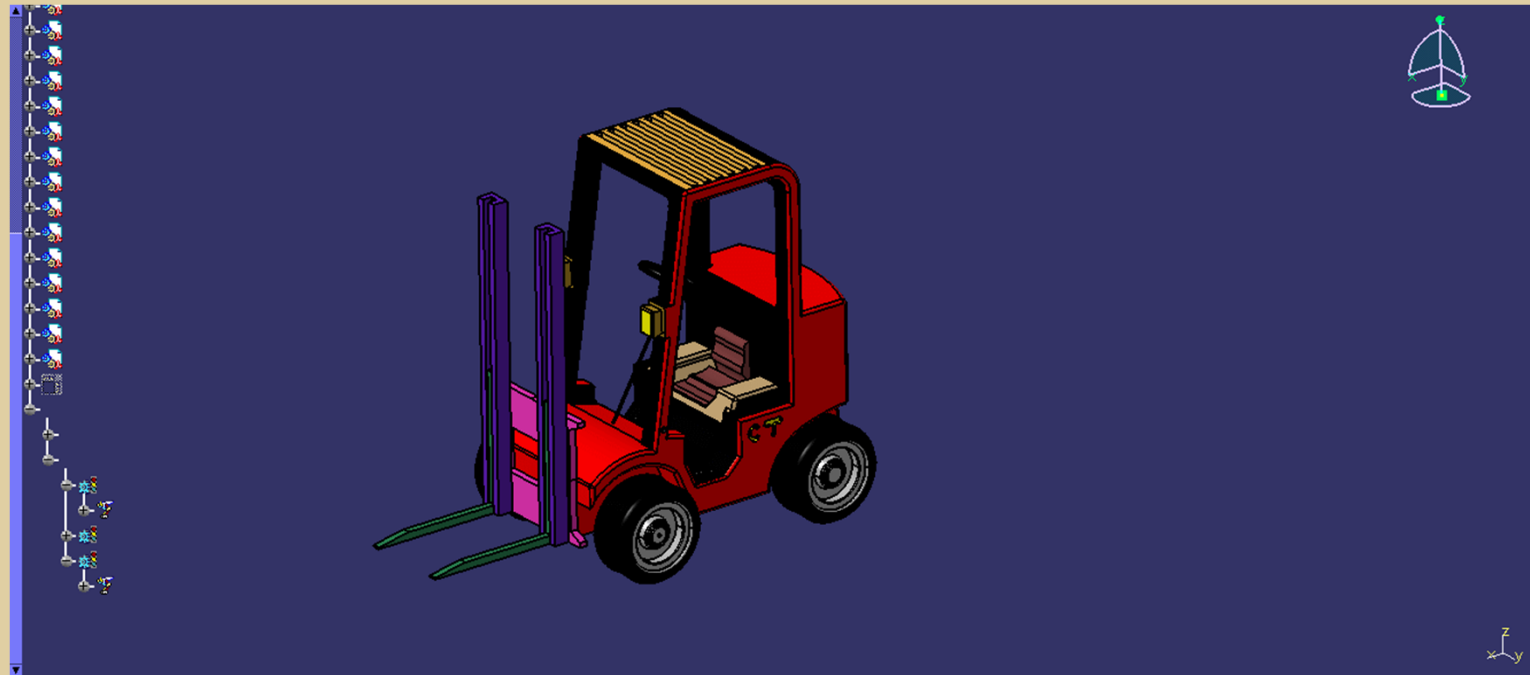
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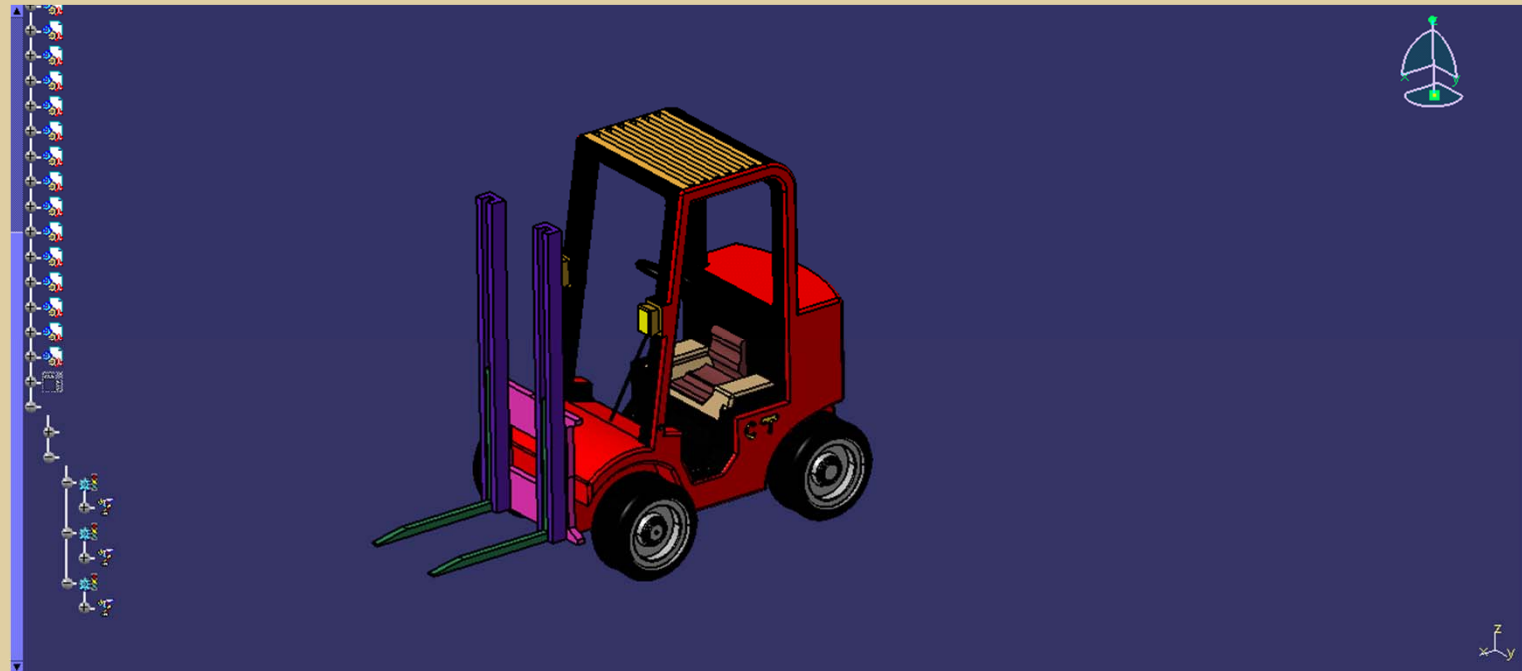
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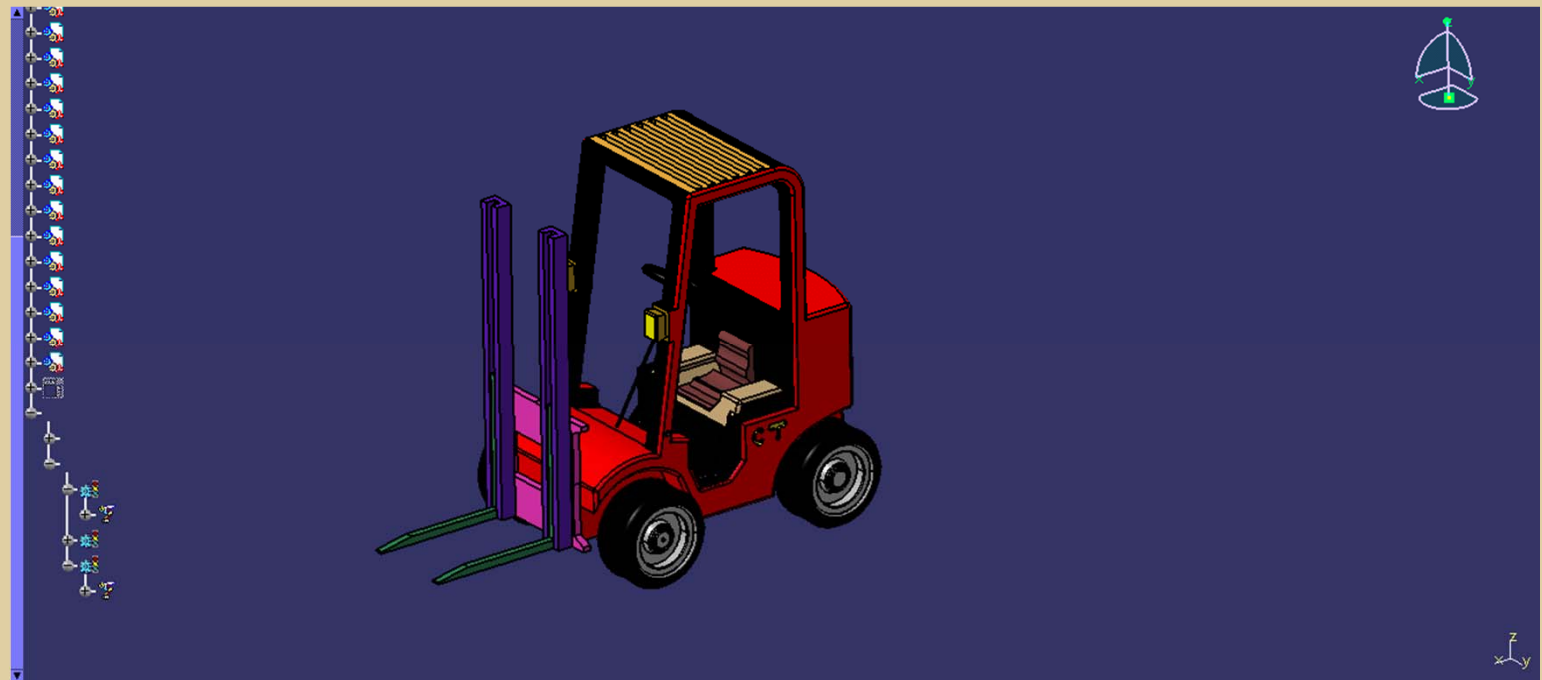
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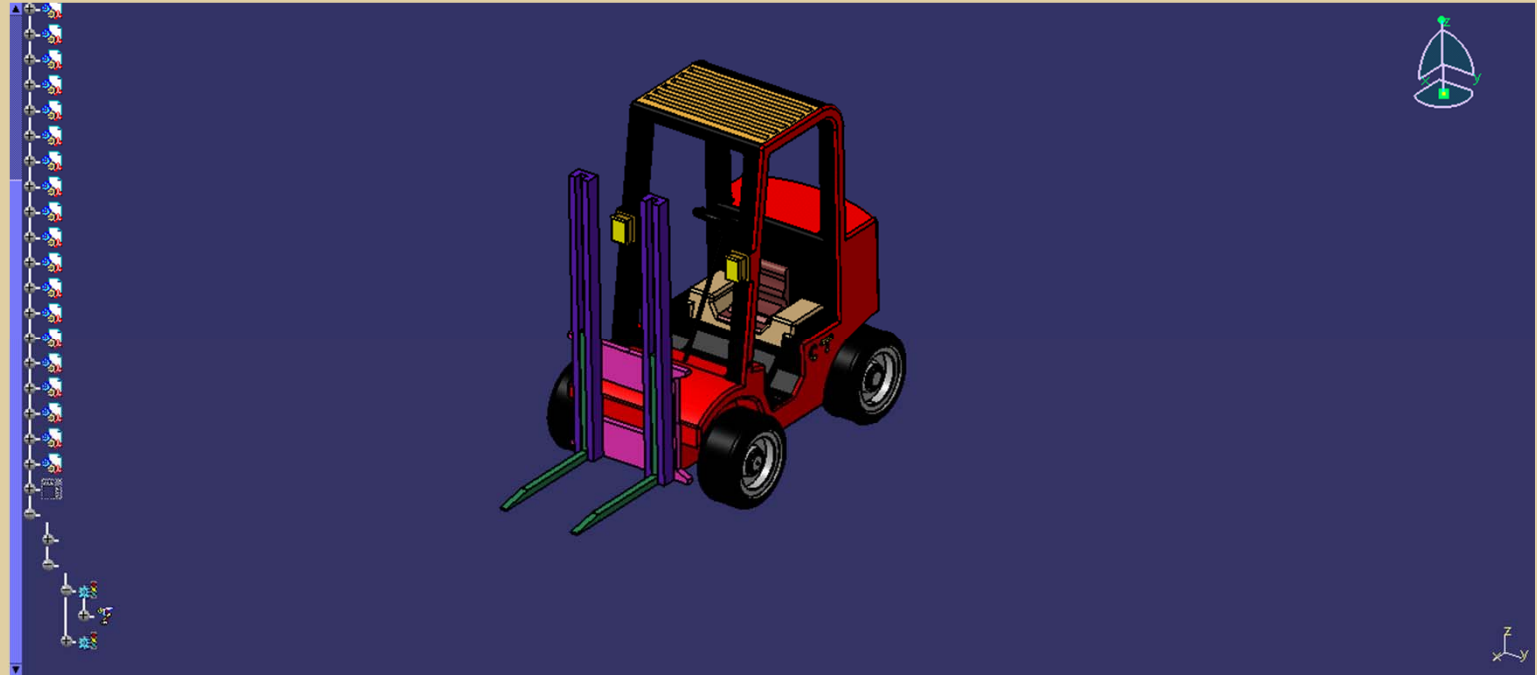
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04. 설계 결과

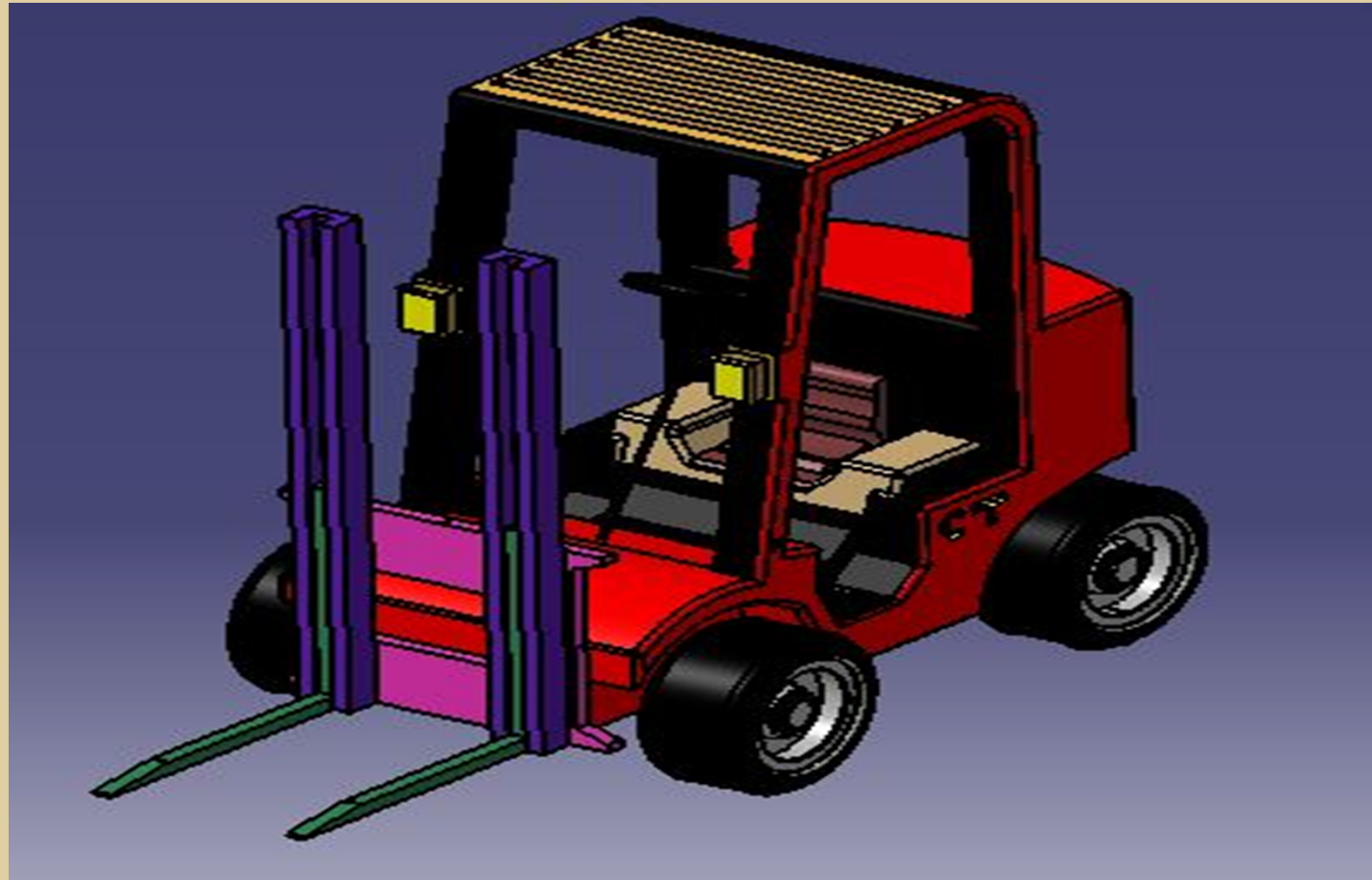
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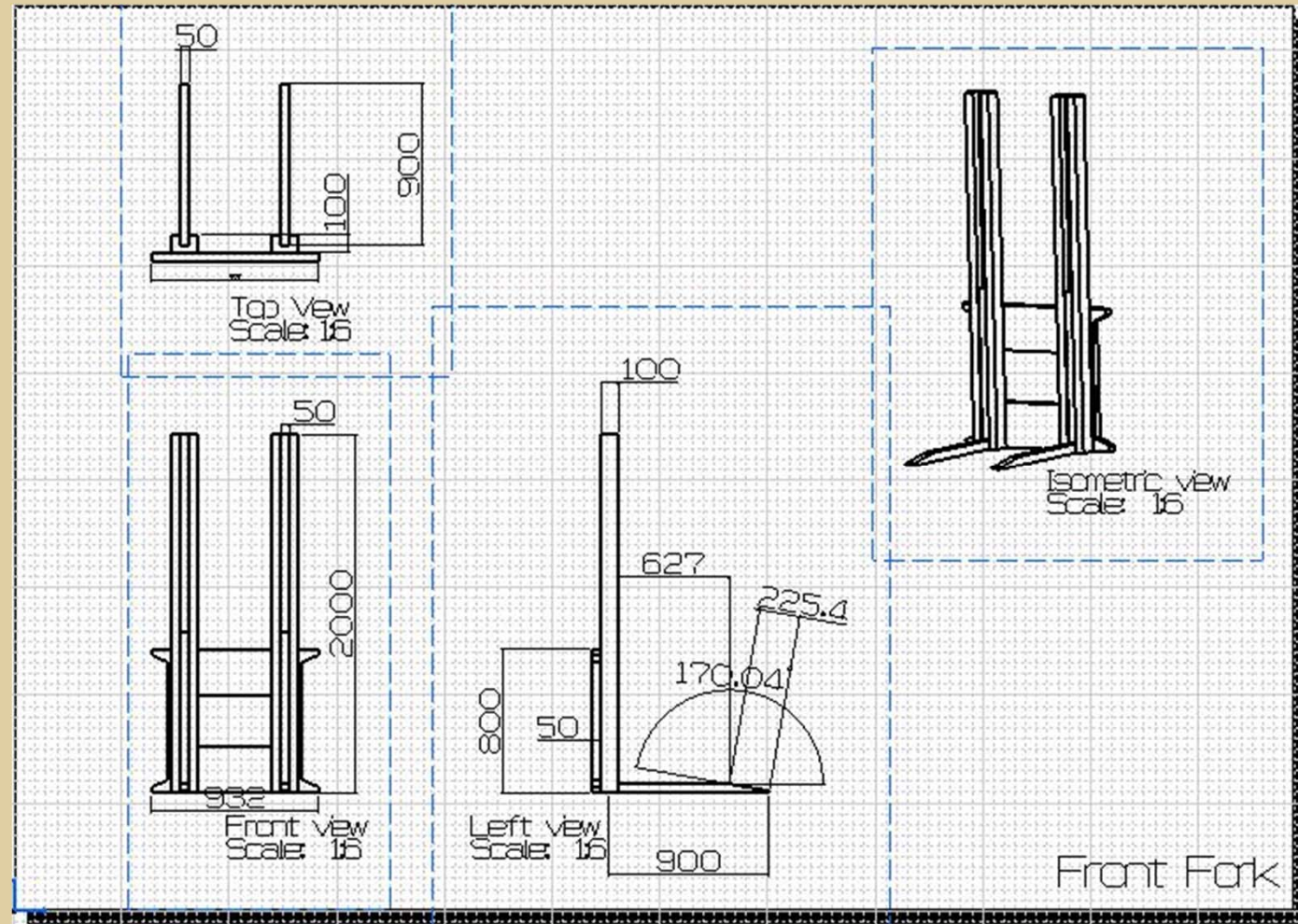
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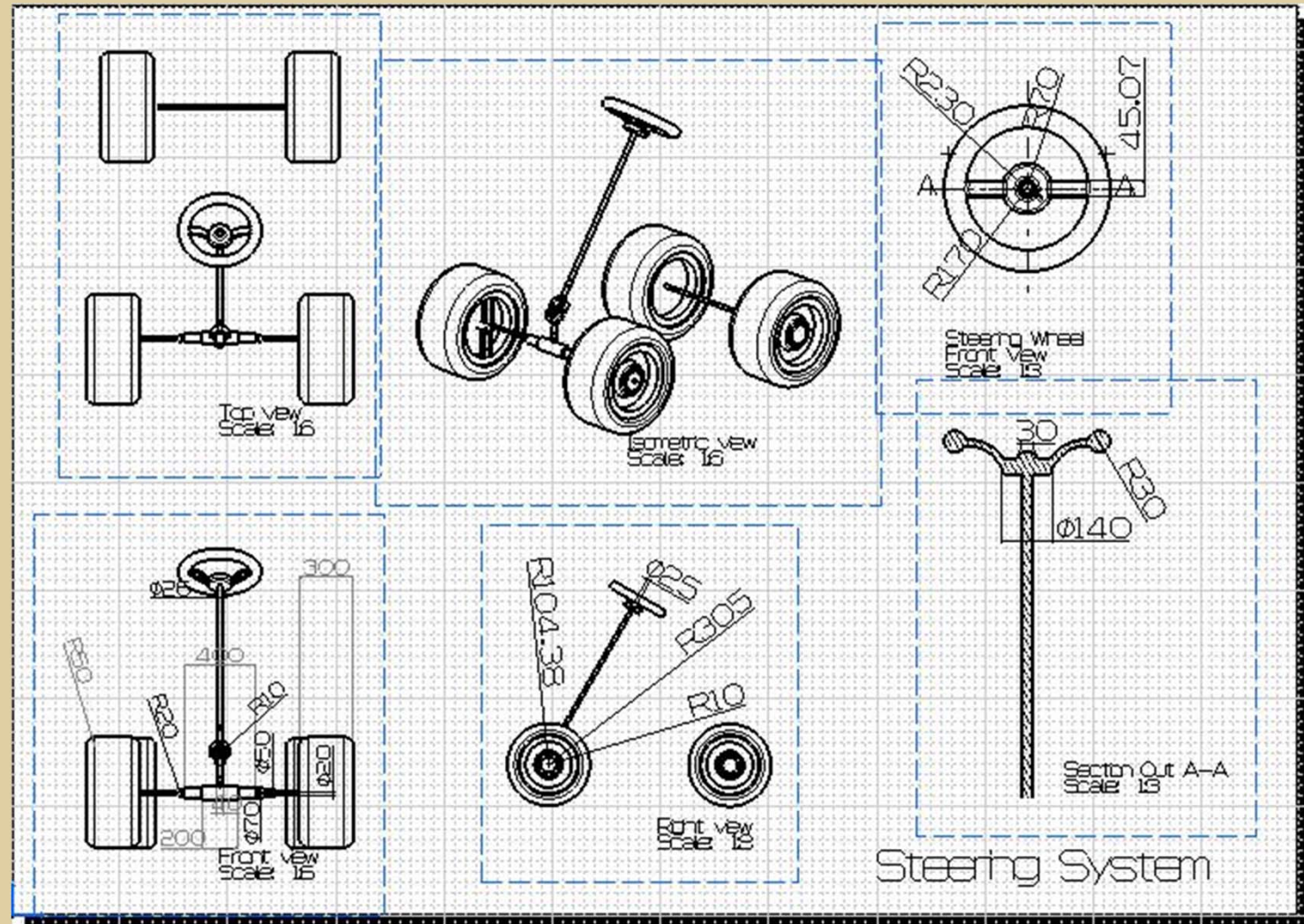
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05. 고 찰

■ 어려웠던 점

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2. 조향 장치 구조

3. 부품간의 연결

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05. 고 찰

■ 해결 방법

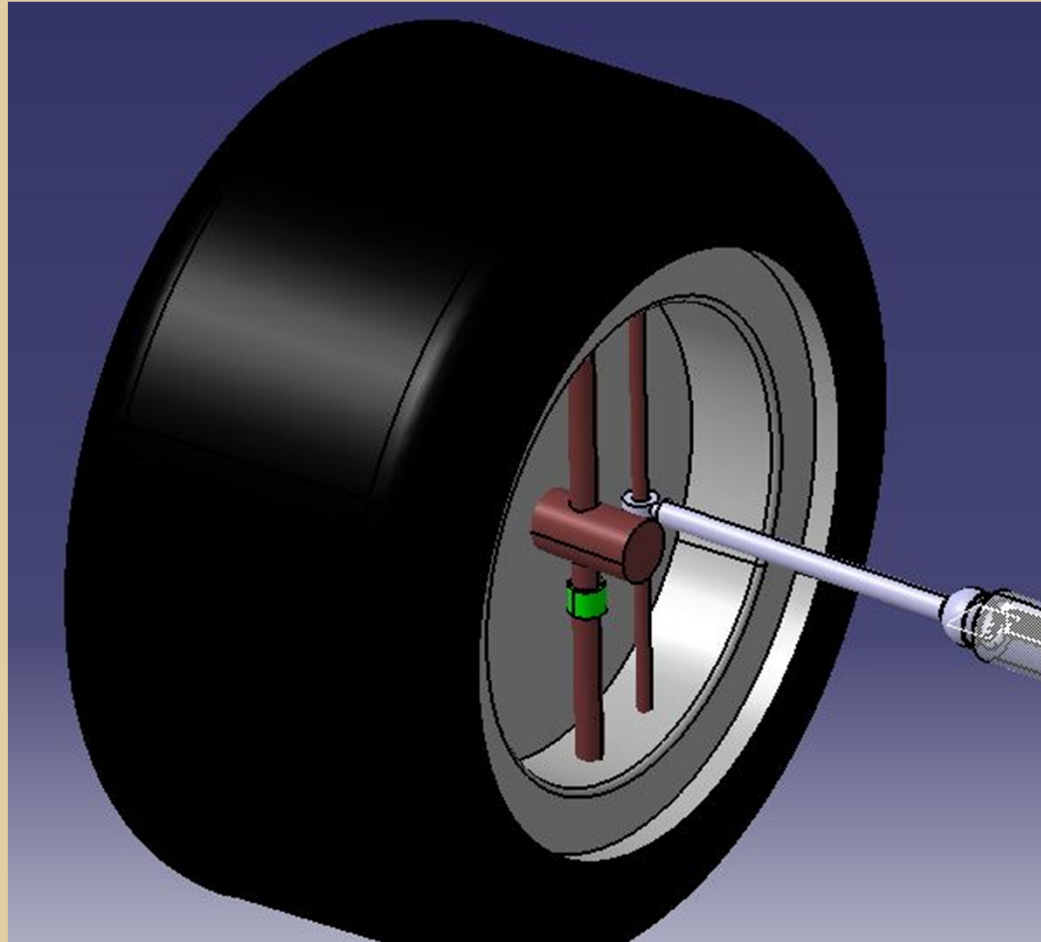
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■ 해결 방법



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Q & A

Thank You

We communicate with cars!