

# KTX-산천 중련연결

Hanyang Univ.  
Computer-aided Design

Thomas & Friends

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Rockin' AND Railin'





# A table of Contents



## Introduction

Motivation & Purpose



## Main Subject - Idea

Main idea of team project



## Main Subject – Part Designing

Part design



## Main subject – Assembly & DMU Kinematics

Assembly & DMU Kinematics



## Conclusion

Flow Video & Feeling(Up-grading)

# Speaker – Jang.Y.S

1. © Captain
2. Idea Making
3. Part Designing of “Train”

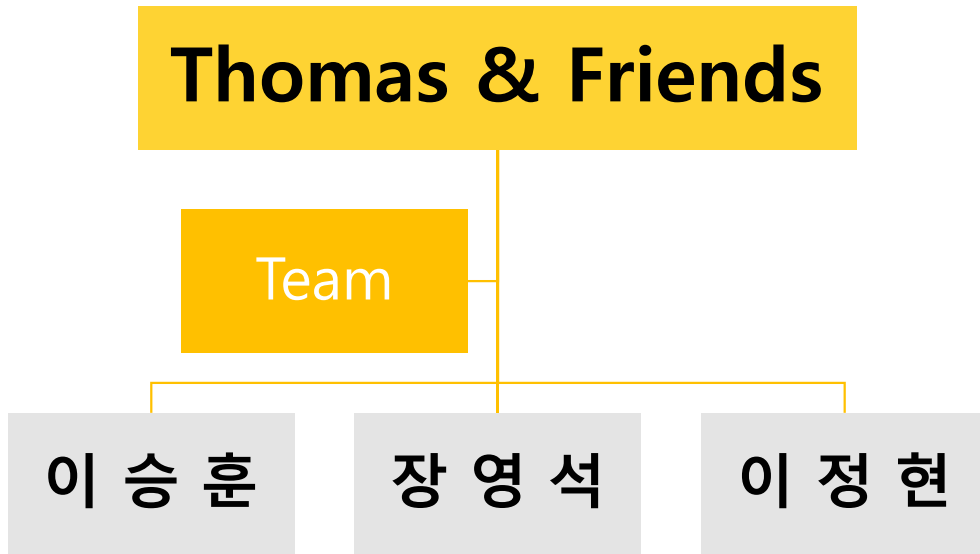




# Part 1

## Introduction

# Team Name – “Thomas & Friends”



## Team Name Selection Background

1. Subject  
KTX-산천 중련연결
2. Animation  
“Thomas the Tank Engine”
3. Friends(16’)  
“Thomas & Friends”



## Project Motivation & Purpose

1

통학

2

용산역

3

KTX-산천  
중련연결

4

CATIA  
구현



# Part 2

## Idea



back to school  
10-14

WINSOR  
&  
NEWTON  
WATER COLOUR MARKER™

8 84955 03270 1  
0201 109  
075121

CADMIUM YELLOW HUE

# #Idea

1. Outsourcing 활용
2. Outsource의 Scale 일치
3. 직접 제작
4. Kinematics equation
5. 분업 및 협업





# Speaker – Lee.S.H

1. Part Designing of “Station”
2. DMU Kinematics
3. Making Presentation



# Part 3

## Part Designing



“

# Train

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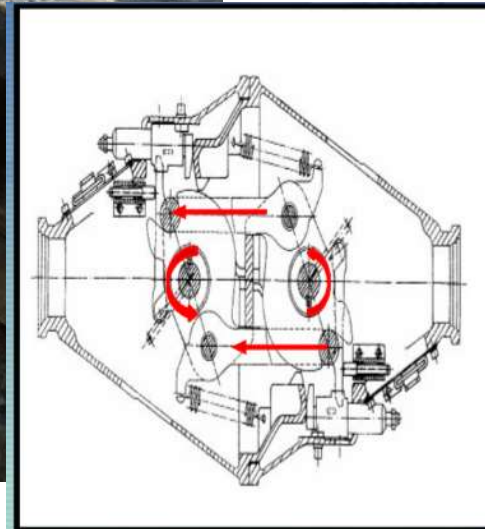


TO

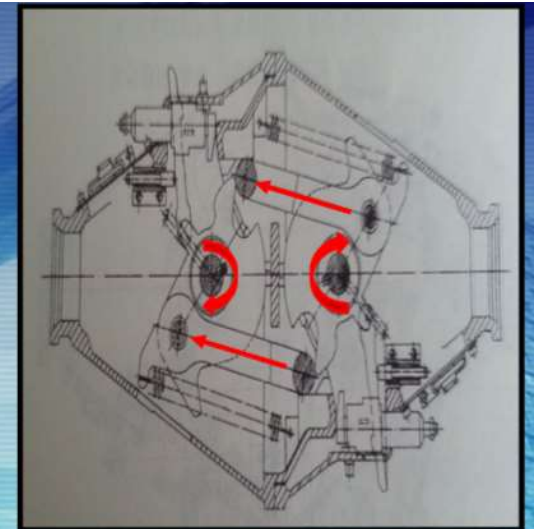
r Car

“

# Coupler



연결 상태



해방 상태

“

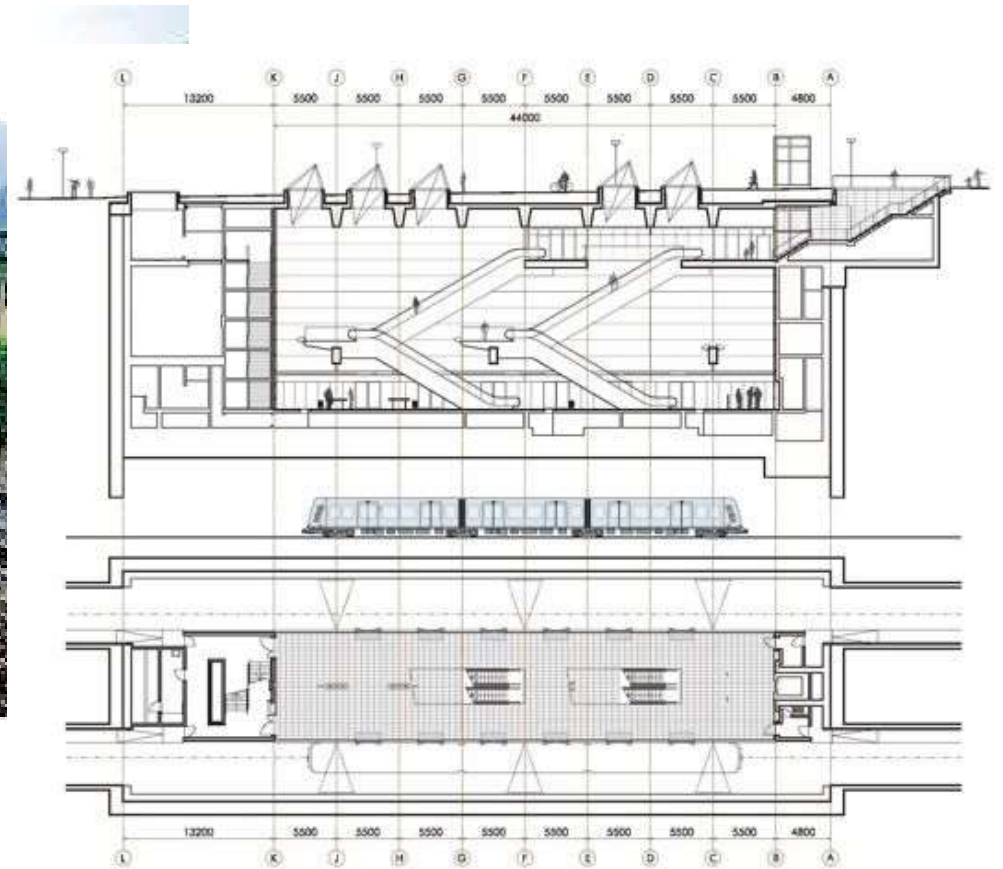
# Coupler

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“

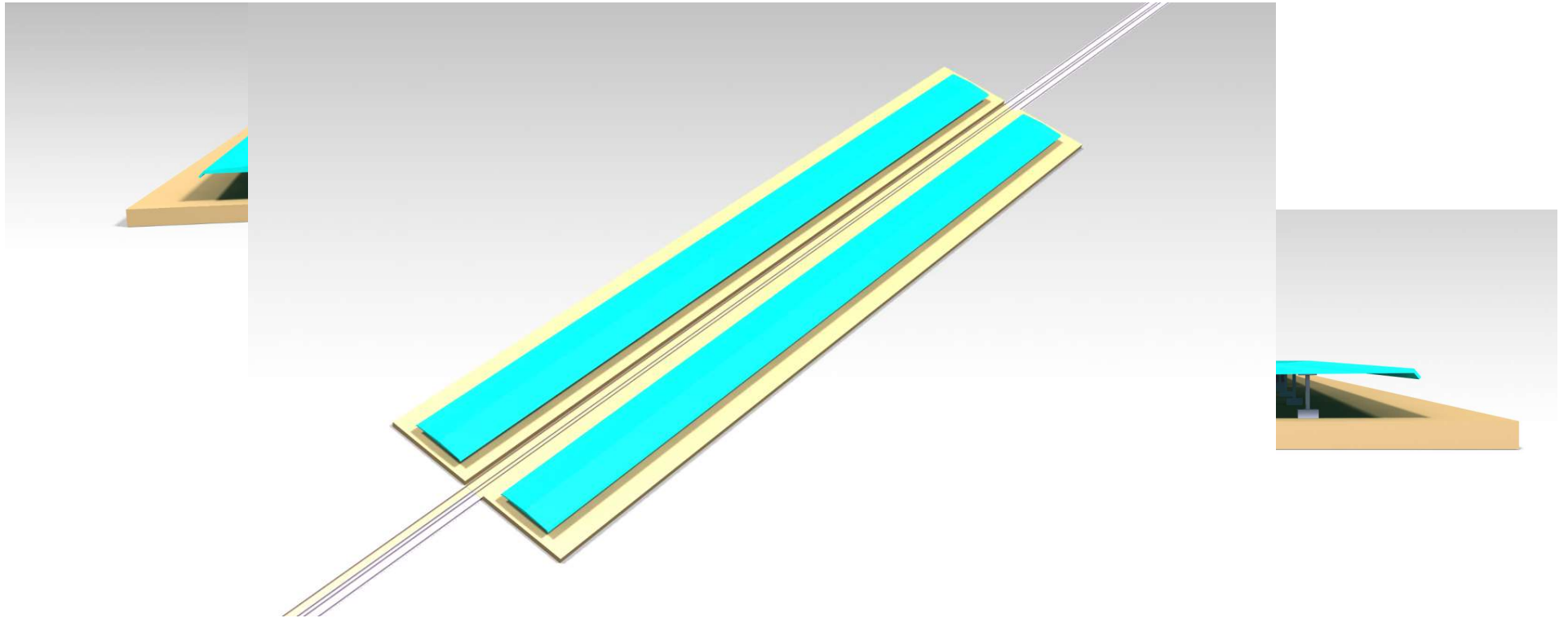
# Station & Rail



“

# Station & Rail

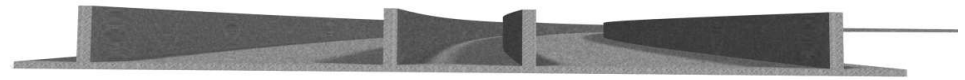
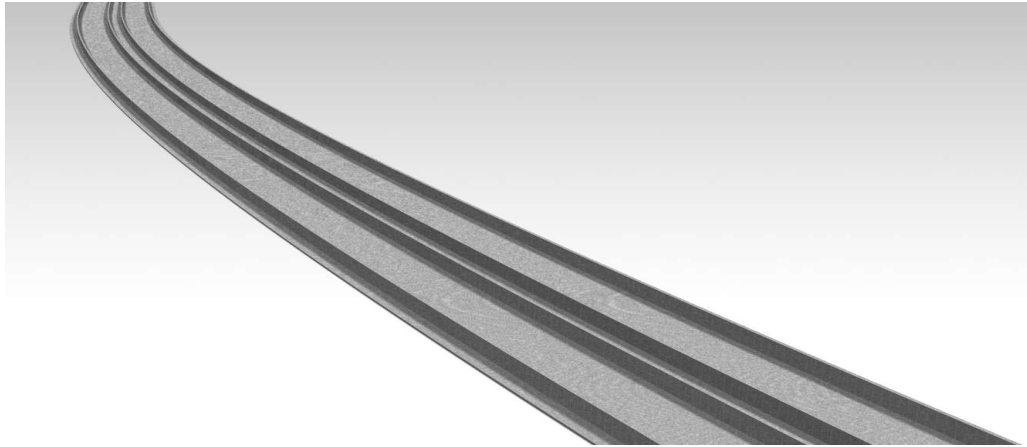
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# Station & Rail

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# Part 4

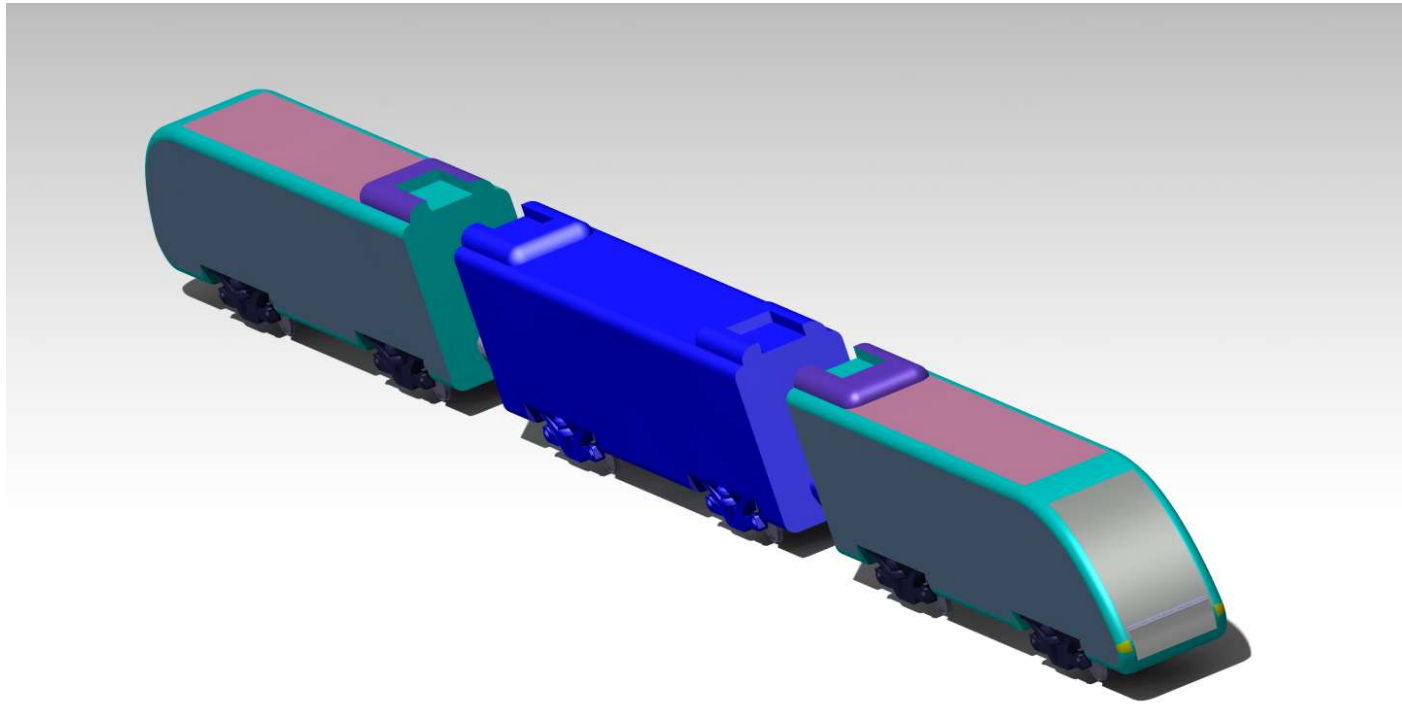
## Assembly & DMU Kinematics



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# Assembly

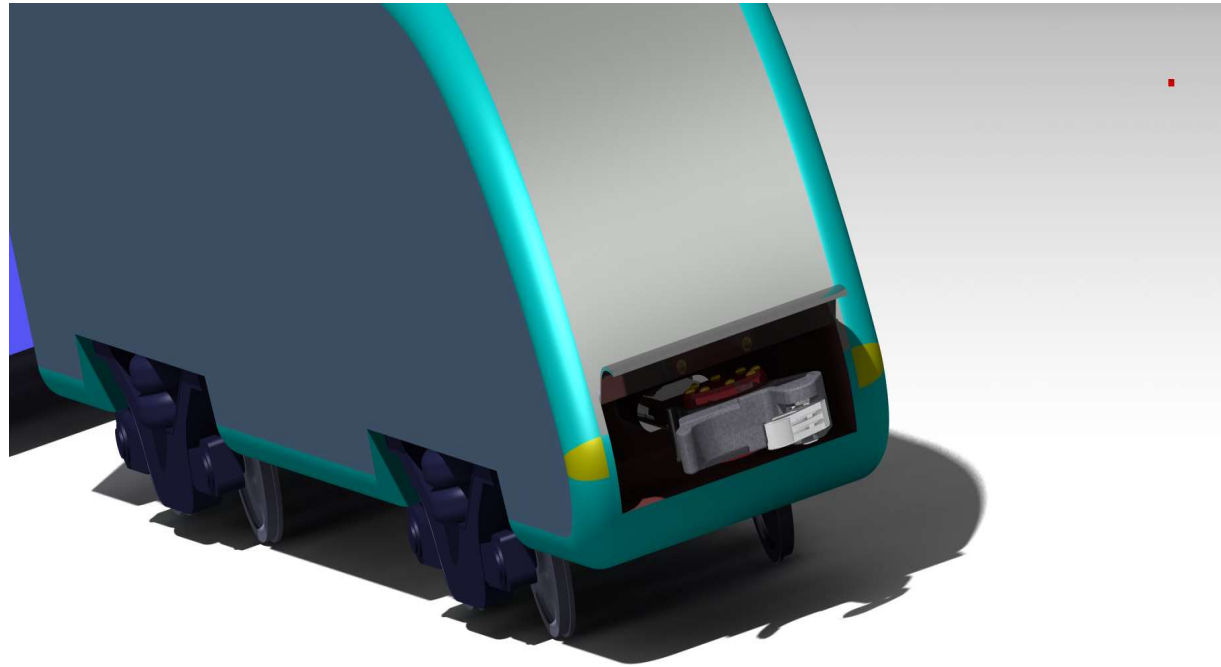
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# Assembly

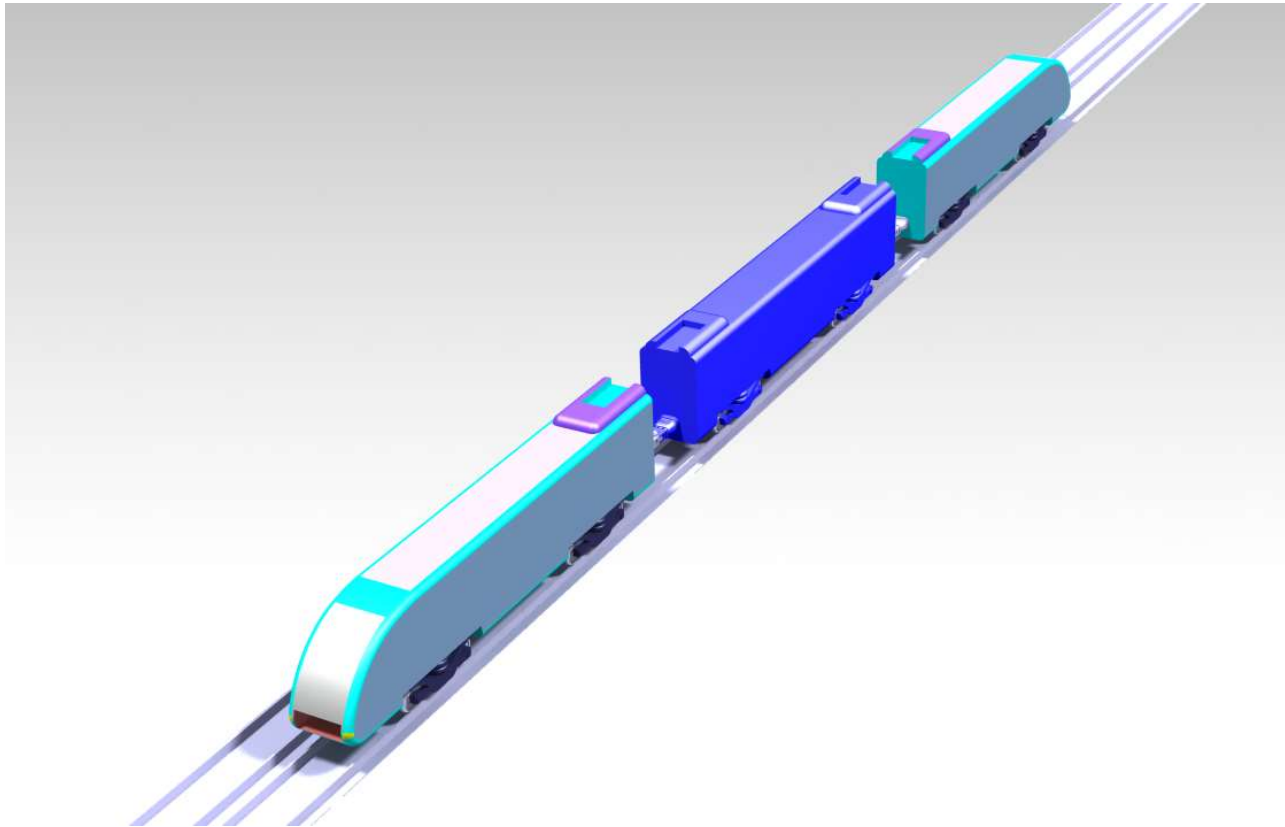
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“

# Assembly

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# #Kinematics

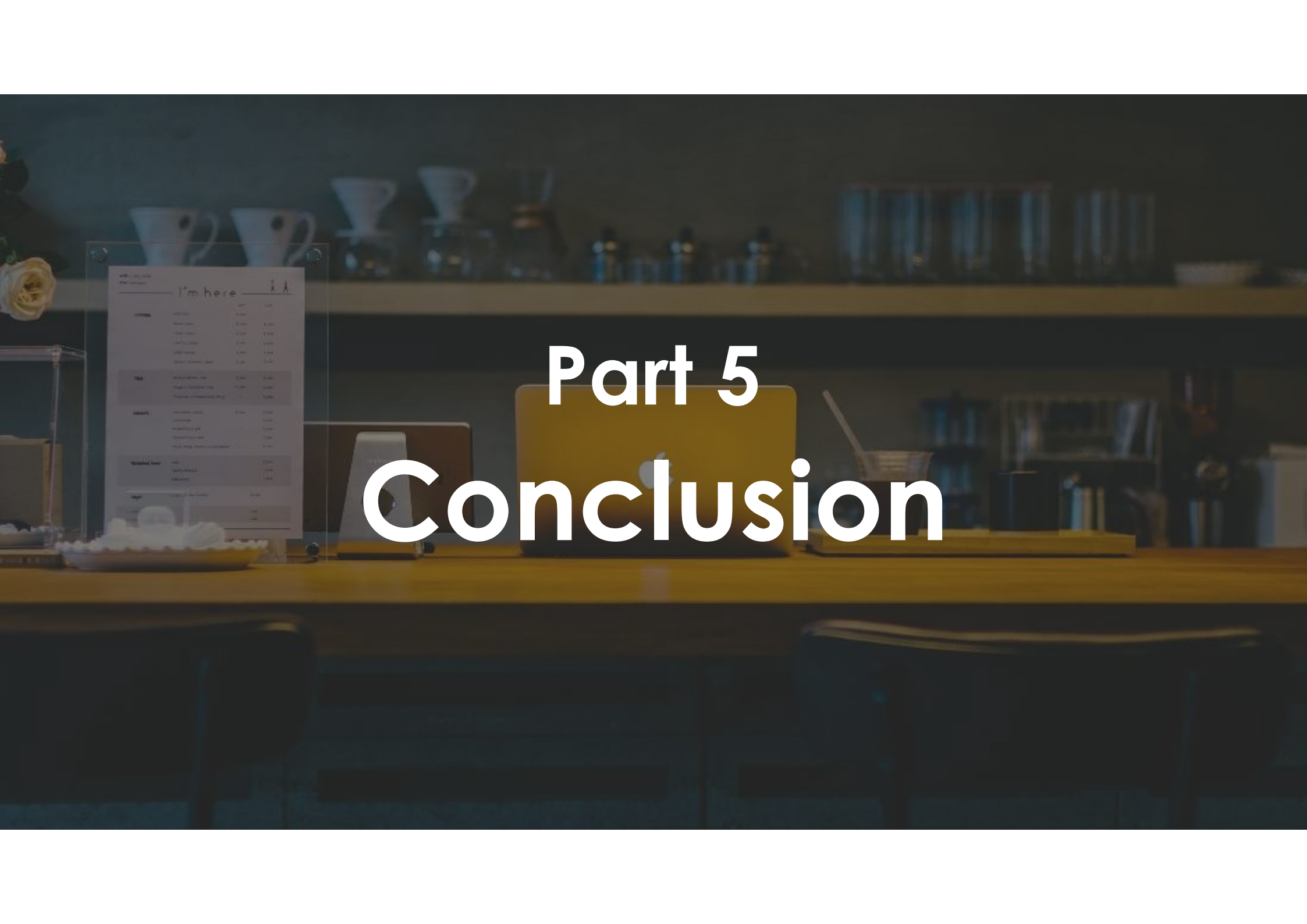
1. Train Motion
  - Roll curve, Point curve
2. Hatch Open
  - Revolute
3. Coupler Contact
  - Prismatic, Slide Curve



# Speaker – Lee.J.H

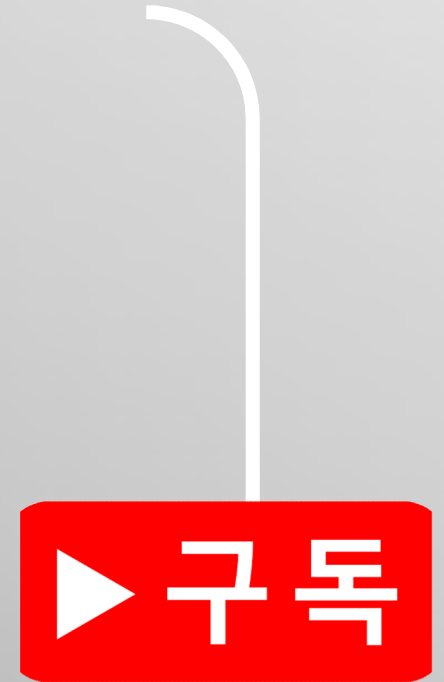
1. Part Designing of “Coupler”
2. Making Video
3. Assembly





# Part 5 Conclusion

You **Tube**™

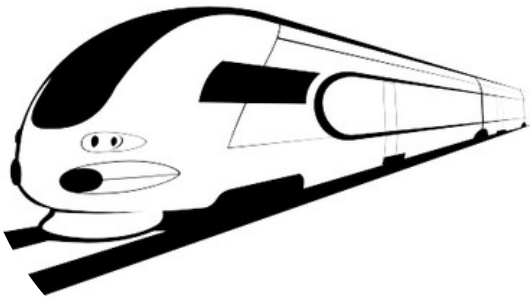






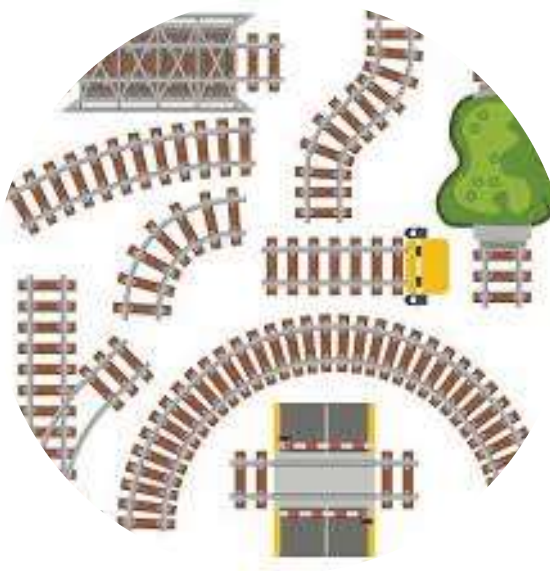
*Rockin' AND Rollin'*

# Conclusion



## Trial & Error

도면이 없는 object를  
사진과 동영상만 참고하여 만들기 힘들



## Limits

구현하지 못한 부분



## Improvement

더 발전 하려면?

A 3D cutaway rendering of a teal train car on tracks. The train car is shown from a side-rear perspective, revealing its internal mechanical components, including a large grey cylindrical tank and various pipes and electrical systems. The train is positioned on a set of tracks that recede into the distance. The background features a simple, modern station structure with a grey roof and dark supports. The overall scene is brightly lit, creating a clean and professional look. The text "Thank You" is prominently displayed in the center of the image, rendered in a bold, yellow font with a thick orange outline.

**Thank You**