

# 도개교 (부산영도대교)



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# CONTENTS

1. 팀명 및 주제 선정

2. 팀 프로젝트 설계

3. 시연 동영상

4. 질의응답



주제: 도개교(영도대교)

선정 이유:

영도대교는 한국 최초이자 현재까지 유일한 도개교

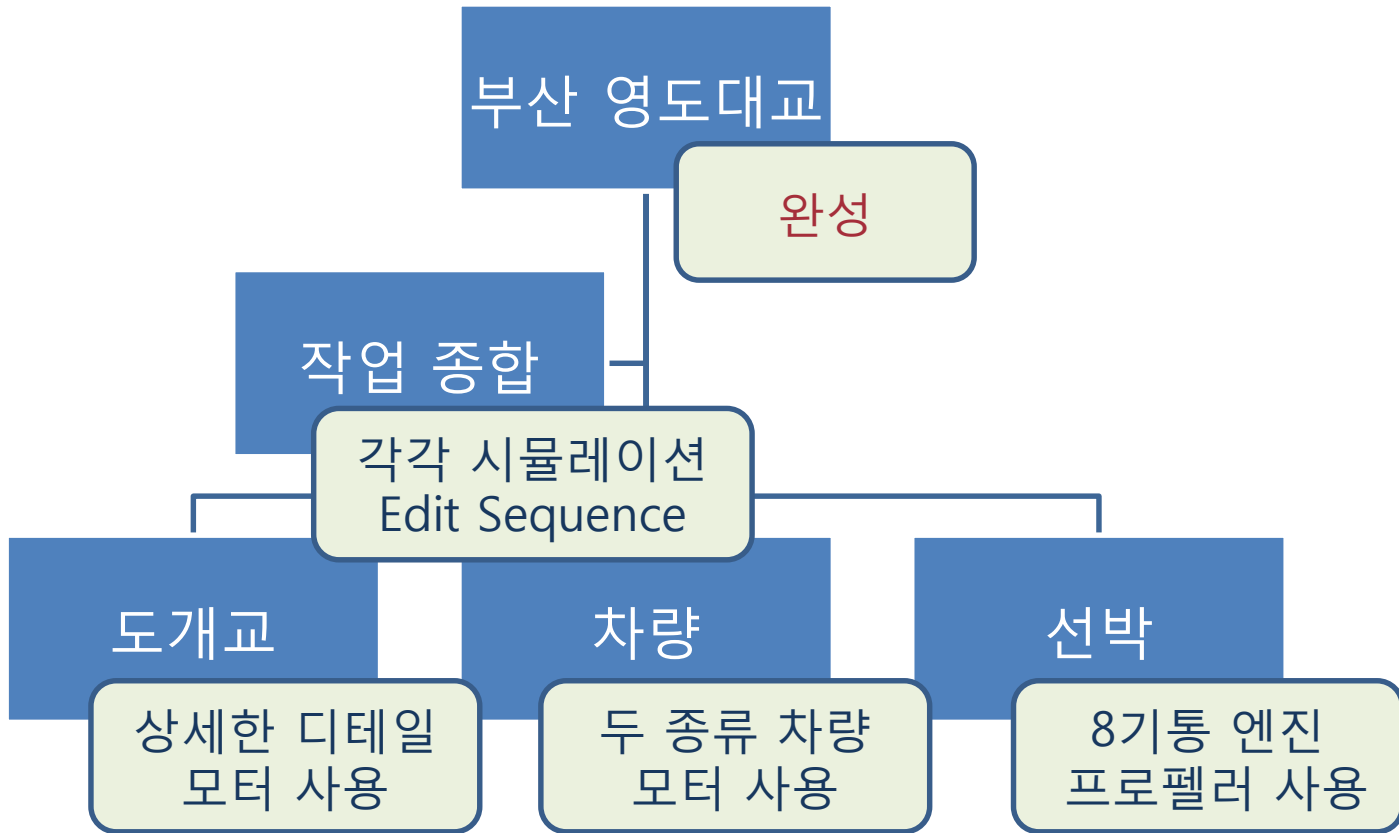
일제시대와 수탈, 6.25 전쟁의 이산과 실향의 역사가 담겨있는 다리

최초의 타이틀과 역사가 담겨있는 다리를 만들어 의미 있는 프로젝트 진행

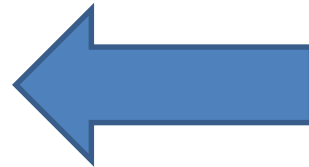
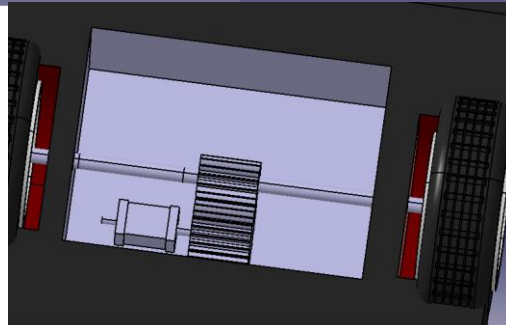
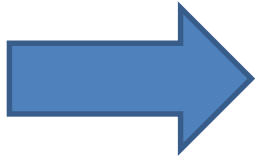
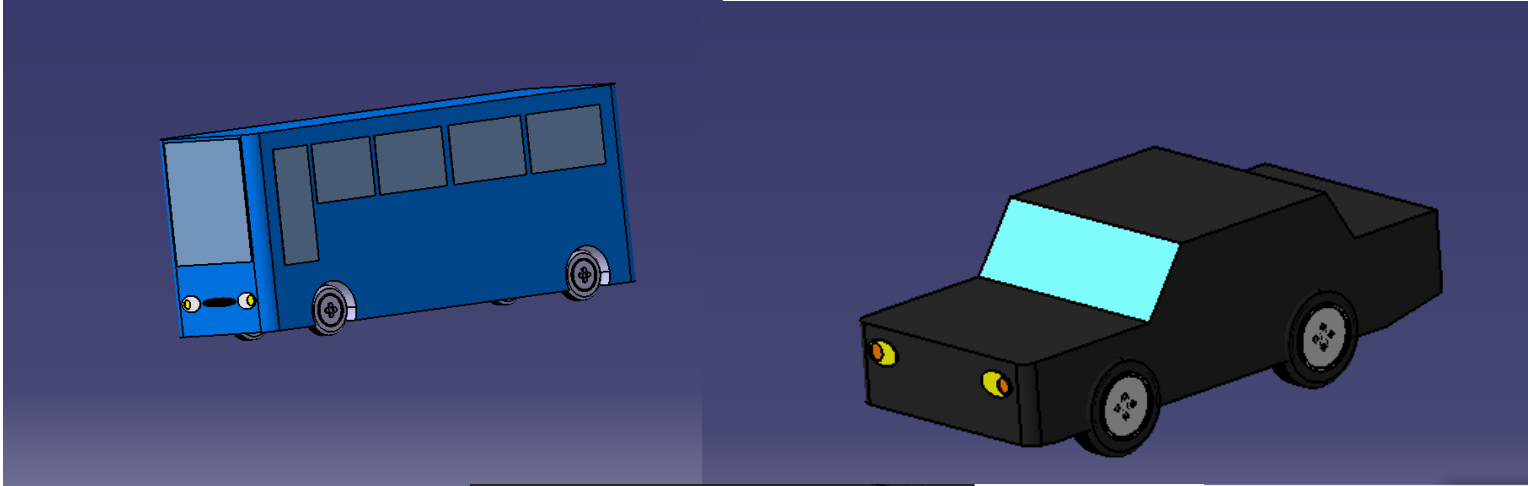


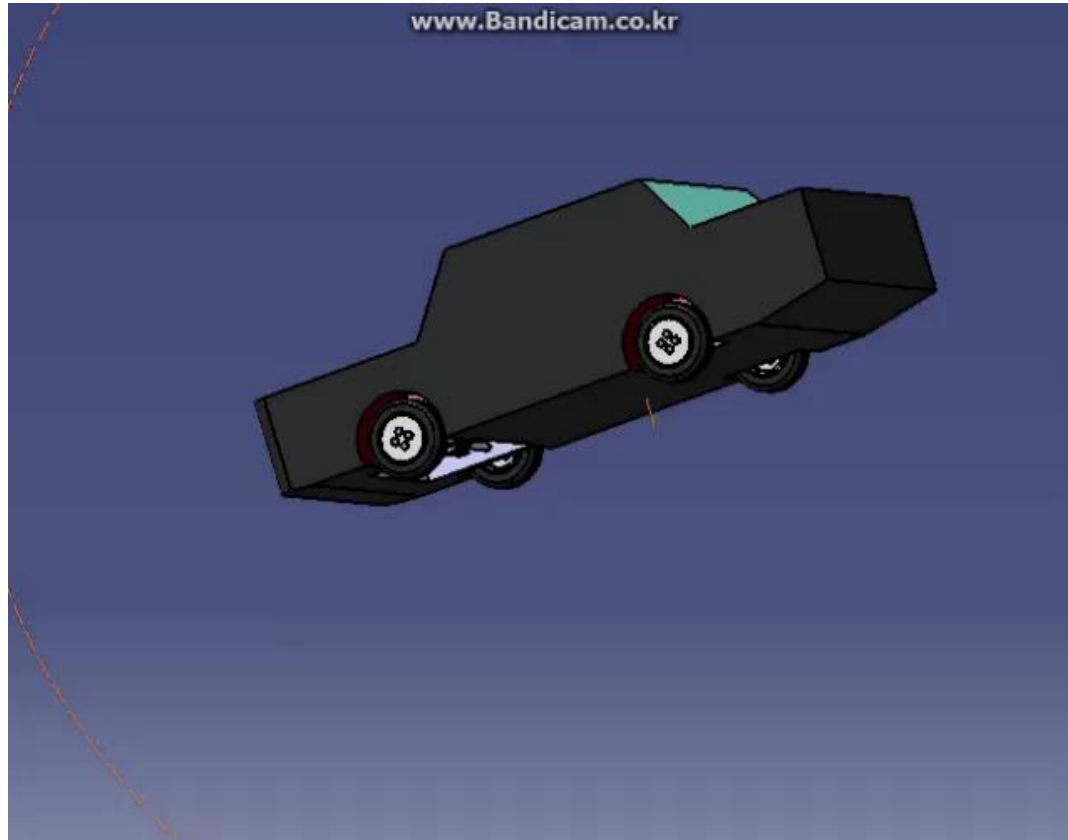
# 1. 팀명 및 주제 선정



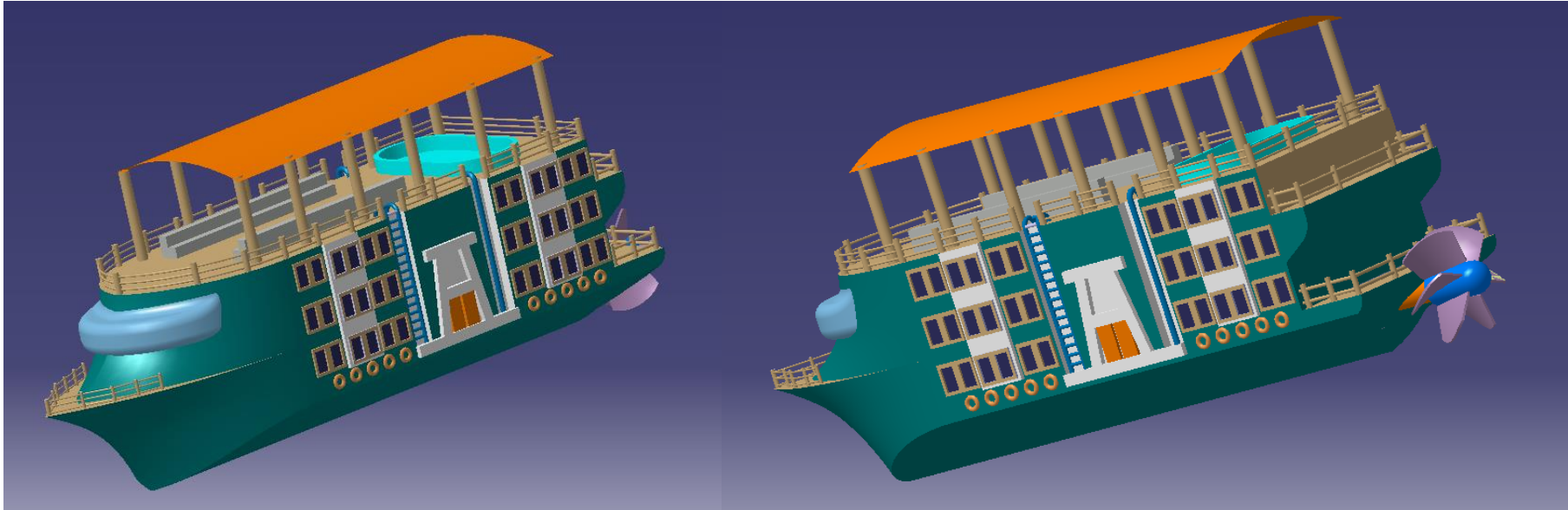


### 1. 차량 설계



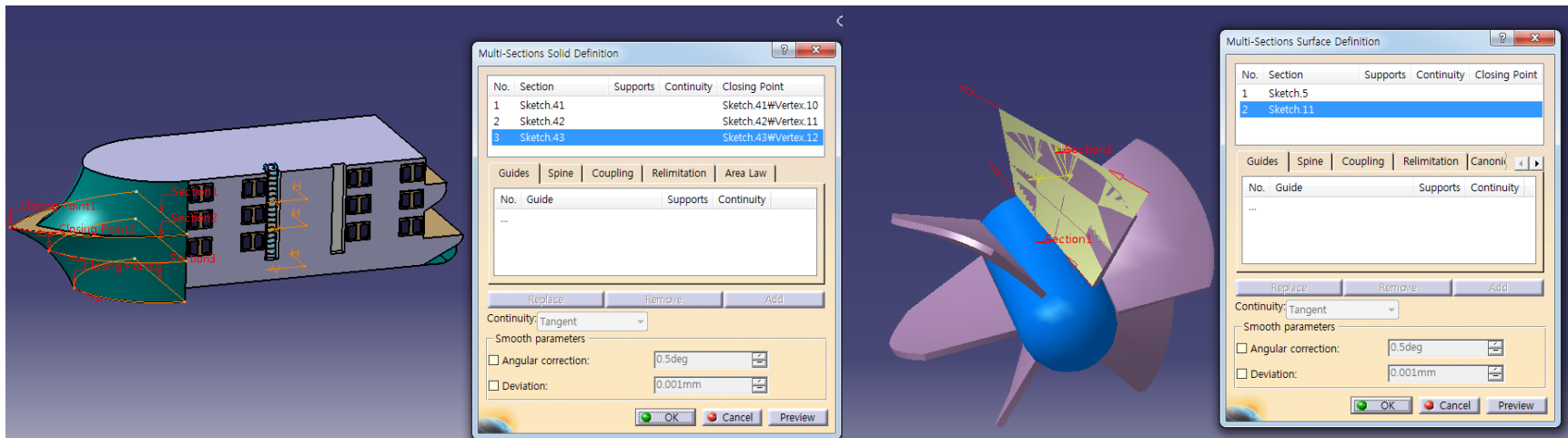


### 2. 선박 설계

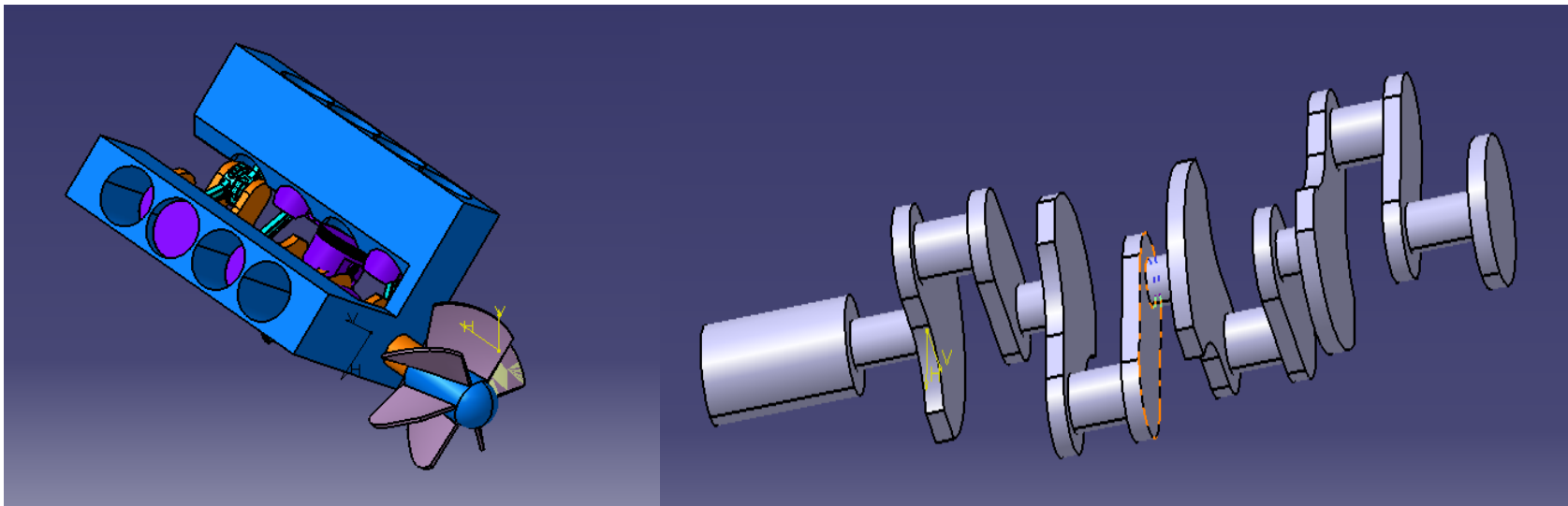




## 선박의 곡선부분과 프로펠러는 Multi section 사용

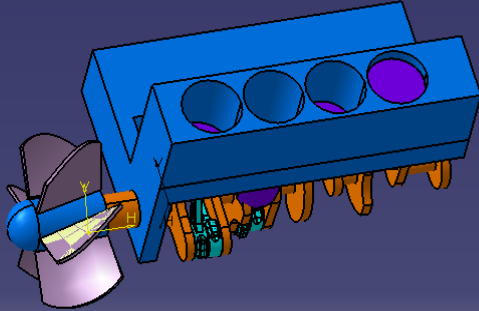


선박의 추진을 위해 8기통 엔진 설치  
크랭크 샤프트는 90도 각도를 이루고 있음

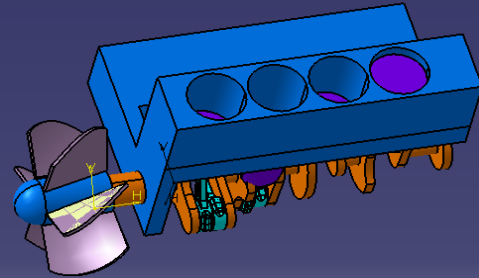


엔진을 만들기 위해 42개의 Joint 와 144개의 Constrain 사용

- Rigid.18 (piston head.4,pin.4)
- Revolute.19 (pin.4,connecting rod.6)
- Rigid.20 (connecting rod.6,connecting rod25)
- Revolute.21 (connecting rod.6,crank shaft.1)
- Rigid.22 (piston head.7,pin.7)
- Revolute.23 (connecting rod.3,pin.7)
- Rigid.24 (connecting rod.3,connecting rod26)
- Revolute.25 (crank shaft.1,connecting rod.3)
- Rigid.26 (piston head.1,pin.1)
- Revolute.27 (connecting rod.4,pin.1)
- Rigid.28 (connecting rod.4,connecting rod2.7)
- Revolute.29 (connecting rod.4,crank shaft.1)
- Rigid.30 (piston head.6,pin.6)
- Revolute.31 (pin.6,connecting rod.5)
- Rigid.32 (connecting rod.5,connecting rod2.8)
- Revolute.33 (connecting rod.5,crank shaft.1)
- Prismatic.34 (block.1,piston head.3)
- Prismatic.35 (piston head.5,block.1)
- Prismatic.36 (piston head.4,block.1)
- Prismatic.37 (piston head.1,block.1)
- Prismatic.38 (block.1,piston head.2)
- Prismatic.39 (piston head.8,block.1)
- Prismatic.40 (block.1,piston head.7)
- Prismatic.41 (piston head.6,block.1)
- Rigid.42 (Part.2.1,crank shaft.1)

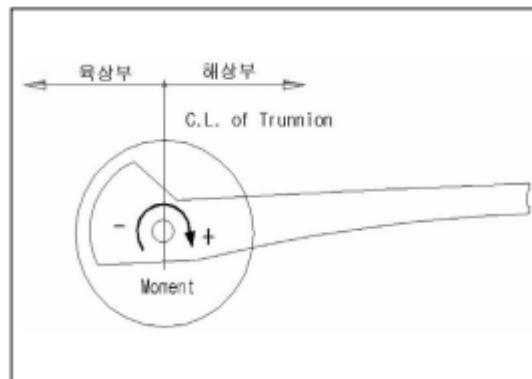
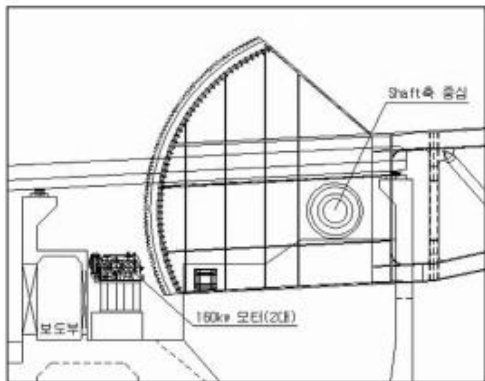


- FixTogether.10(connecting rod.6,connecting rod25)
- Offset.124 (crank shaft.1,connecting rod.6)
- FixTogether.11(piston head.7,pin.7)
- Offset.125 (connecting rod.3,pin.7)
- FixTogether.12(connecting rod.3,connecting rod2.6)
- Coincidence.126 (crank shaft.1,connecting rod.3)
- Offset.127 (crank shaft.1,connecting rod.3)
- FixTogether.13(piston head.1,pin.1)
- Offset.128 (pin.1,connecting rod.4)
- FixTogether.14(connecting rod.4,connecting rod2.7)
- Offset.129 (crank shaft.1,connecting rod.4)
- FixTogether.15(piston head.6,pin.6)
- Offset.130 (pin.6,connecting rod.5)
- FixTogether.16(connecting rod.5,connecting rod2.8)
- Offset.131 (crank shaft.1,connecting rod.5)
- Coincidence.132 (block.1,piston head.3)
- Coincidence.133 (piston head.5,block.1)
- Coincidence.134 (block.1,piston head.4)
- Coincidence.135 (block.1,piston head.1)
- Coincidence.136 (block.1,piston head.2)
- Coincidence.137 (block.1,piston head.2)
- Coincidence.138 (block.1,piston head.8)
- Coincidence.139 (block.1,piston head.7)
- Coincidence.140 (block.1,piston head.7)
- Coincidence.141 (block.1,piston head.6)
- Coincidence.142 (Part.2.1,crank shaft.1)
- Offset.144 (block.1,Part.2.1)
- FixTogether.18(Part.2.1,crank shaft.1)

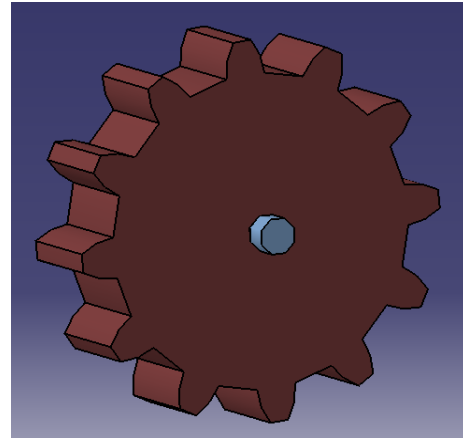
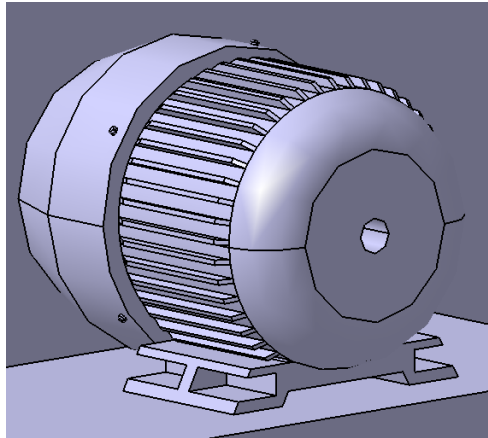
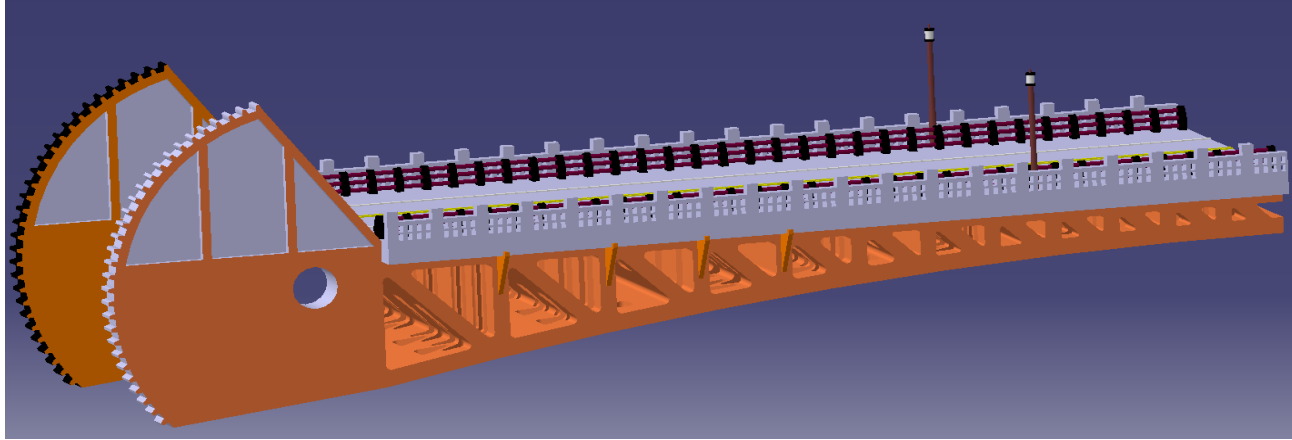


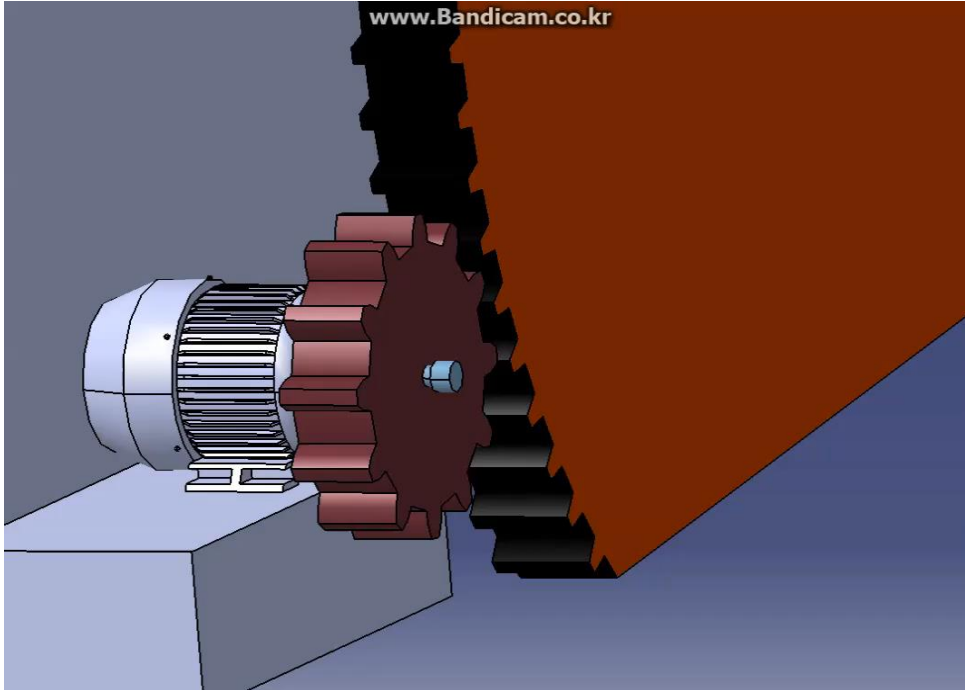


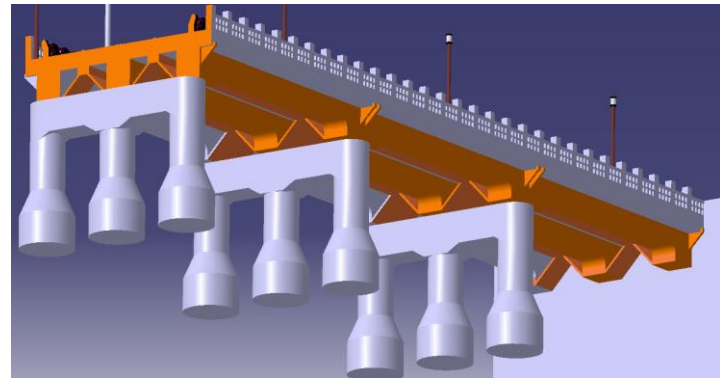
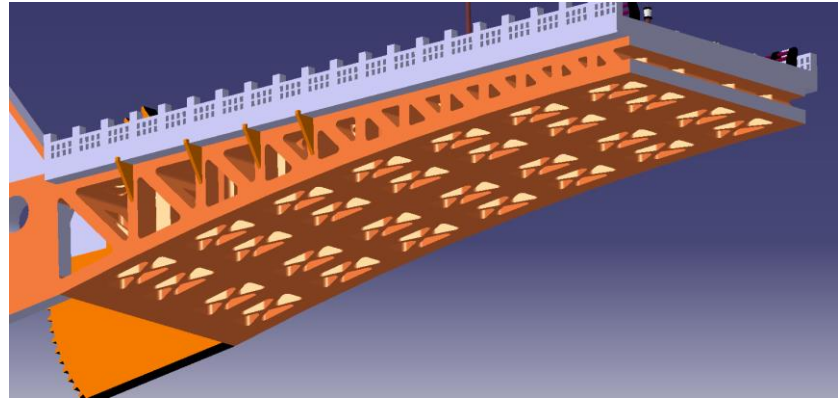
### 3. 도개교 설계



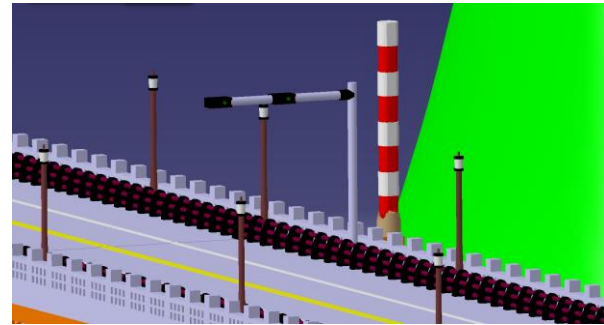
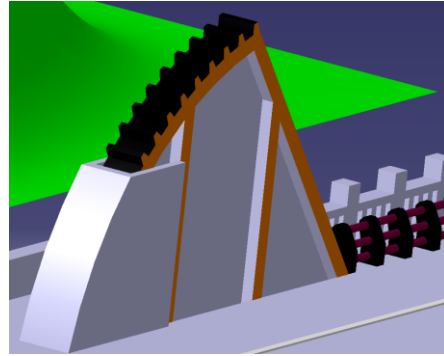
전동 모터와 연결된 기어의 회전력으로 대상물을 움직이는 방식

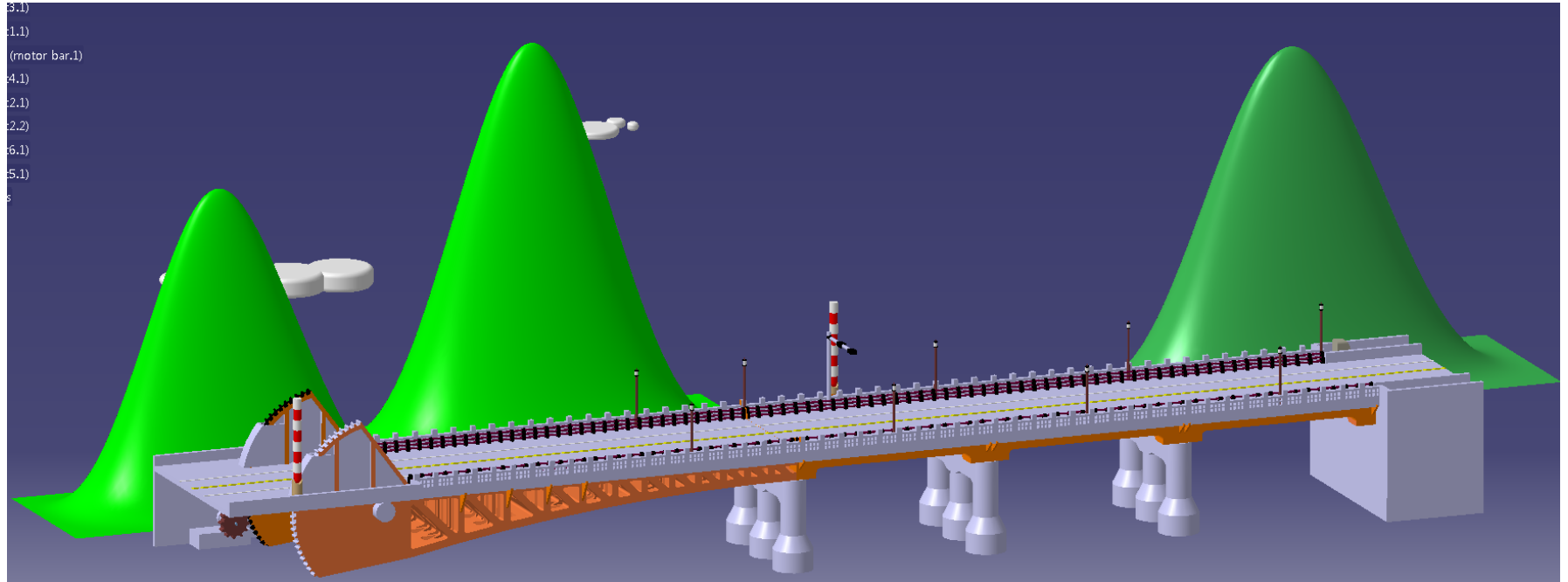




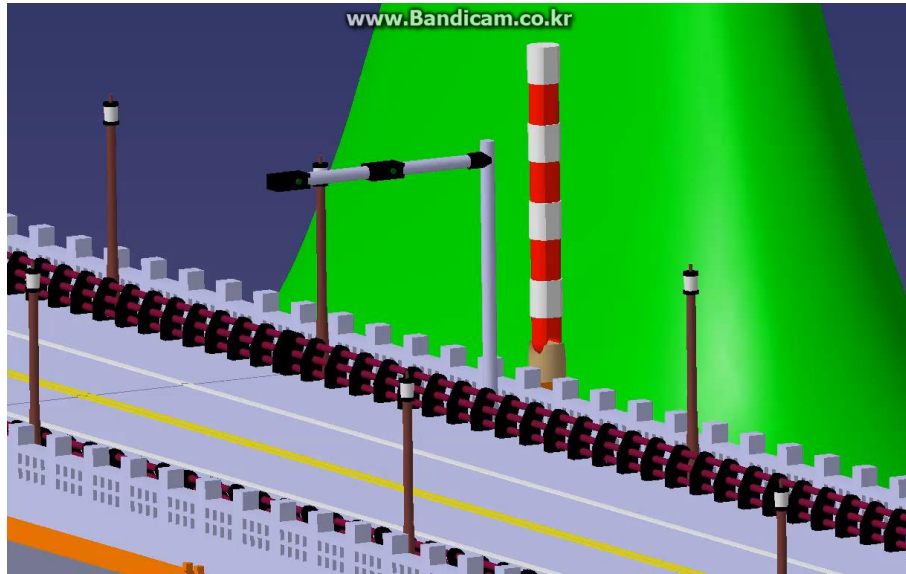








## 4. 시연 동영상





THANK  
YOU