



CAD 팀 프로젝트

(류승)지뢰 탐지 로봇

팀명 : 승지없는 승지팀

사라진 승지를 찾아보자

정성오
조경수(류
승지)

목차



1. 주제 선정 이유
2. 제작 과정
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I. 주제 선정 이유



DMZ에 지뢰를 제거하기 위한 로봇이 개발중에 있어 지뢰 탐지 로봇의 움직임을 CAD로 표현해 보고자 하였다.

방사청, 'DMZ 지뢰 탐지/제거 로봇' 개발 착수

(아시아뉴스통신= 조행만기자)

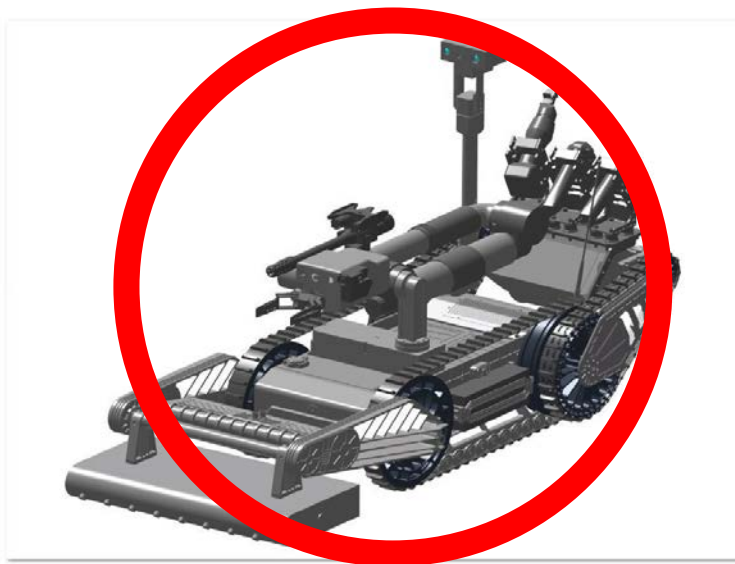
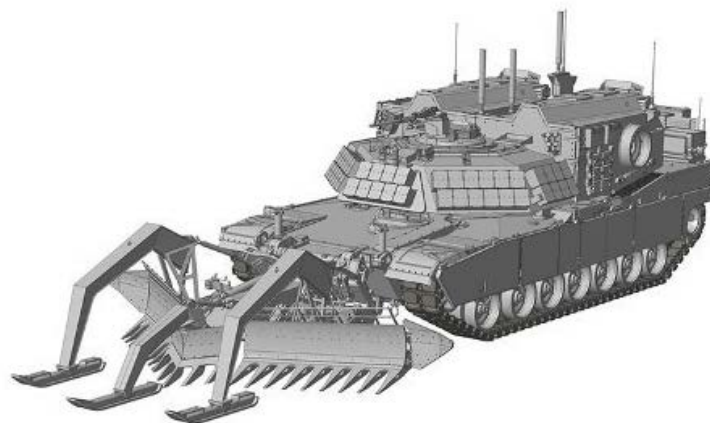
기사입력 : 2017년 12월 08일 15시 49분



사진은 현재 우리 군의 폭발물 처리반이 운용하고 있는 폭발물 탐지/제거 로봇 '그리프(GRYP)' 로봇의 모습이다./아시아뉴스통신 DB

2. 제작 과정

1) 자료 수집 - 외관 설정



2. 제작 과정

2) 자료 수집 - 필요 부품 선정

지뢰 탐지 부분



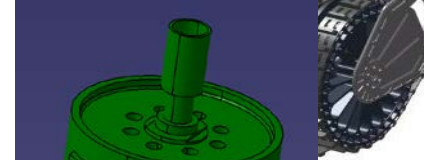
지뢰 제거 부분



카메라



무한 궤도



지뢰



2. 제작 과정

2) 자료 수집 - 탐지 방법 참고



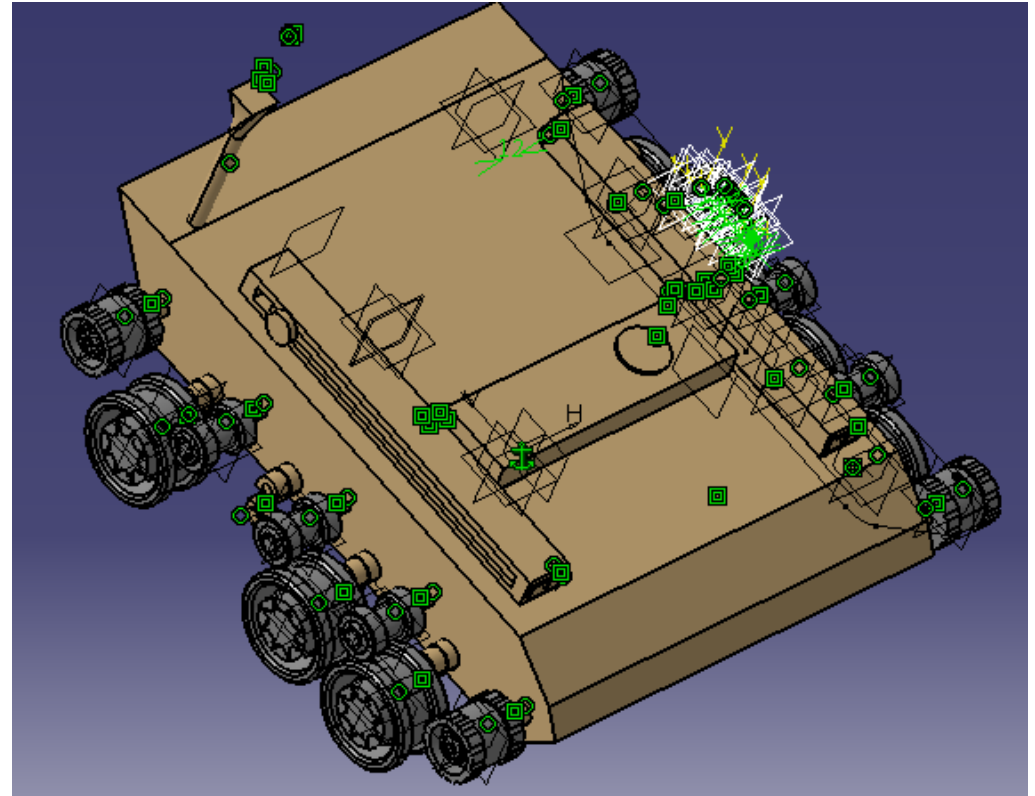
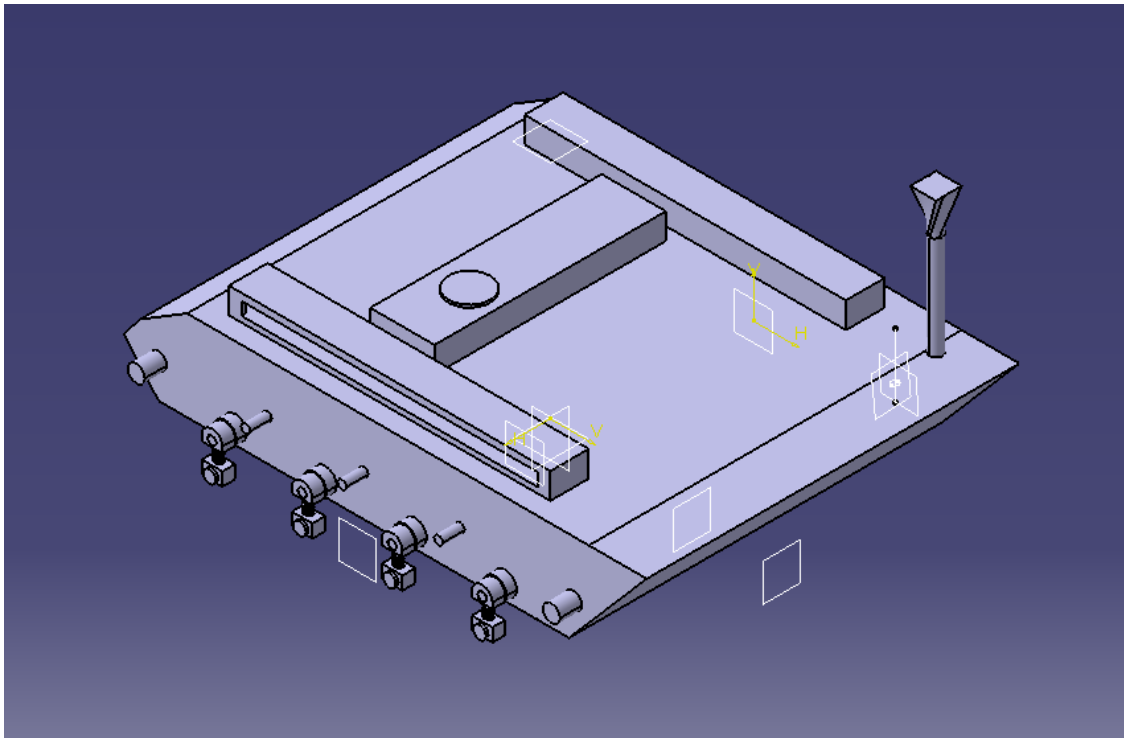
<https://www.youtube.com/watch?v=6xsf8u3VA3k>

2. 제작 과정

2) 자료 수집 - 제거 방법 참고



2. 제작 과정

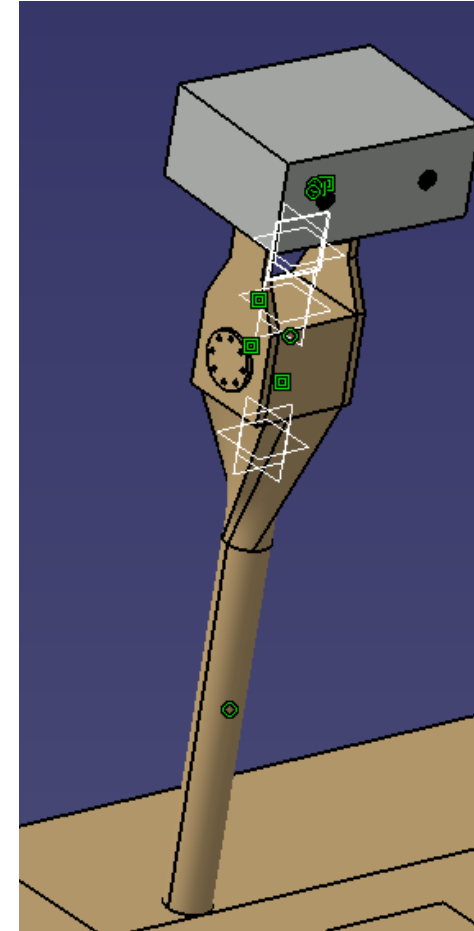
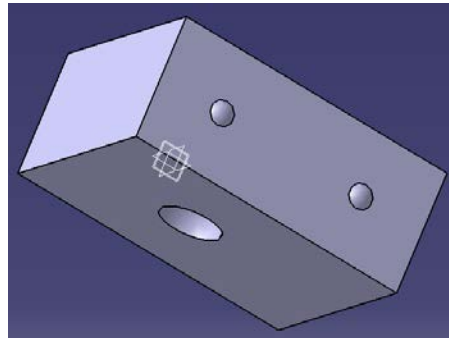
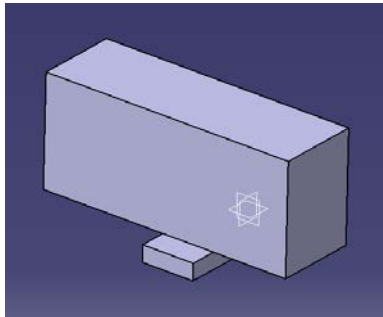
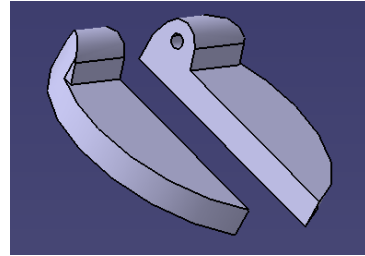
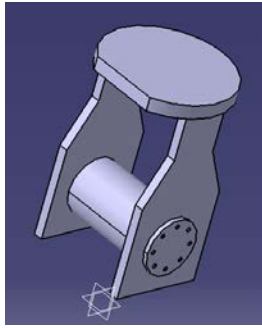
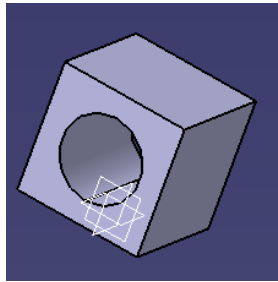


BODY 제작

2. 제작 과정



CAMERA PART

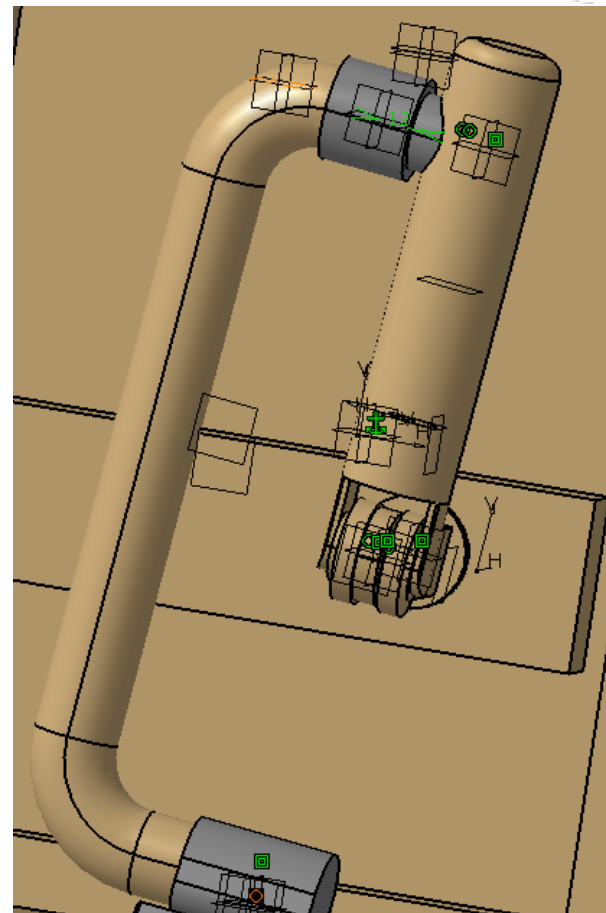
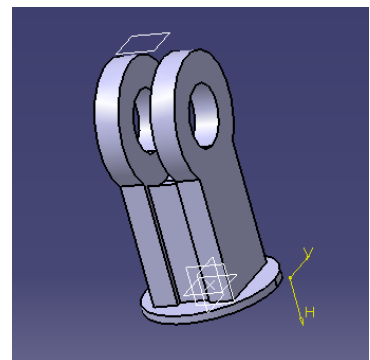
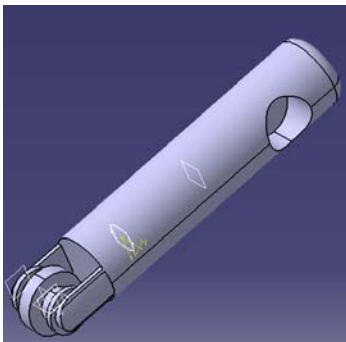
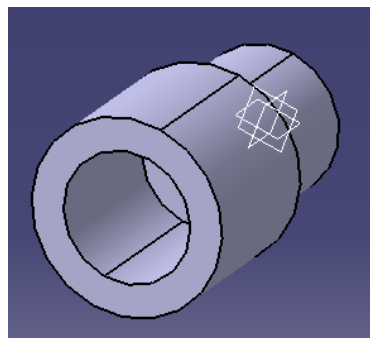
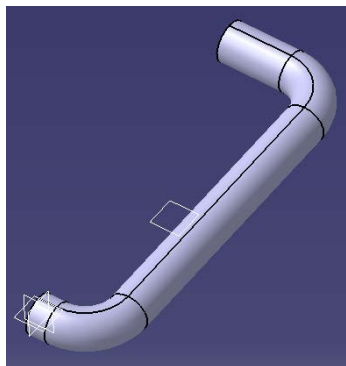


CAMERA 제작

2. 제작 과정



REMOVAL PART

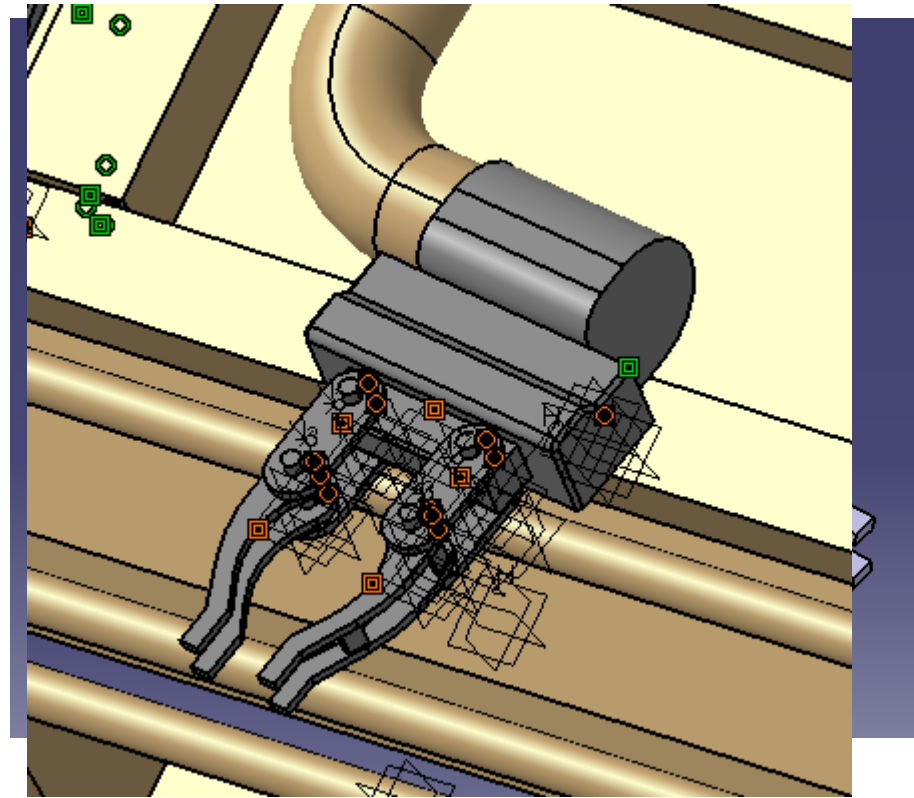
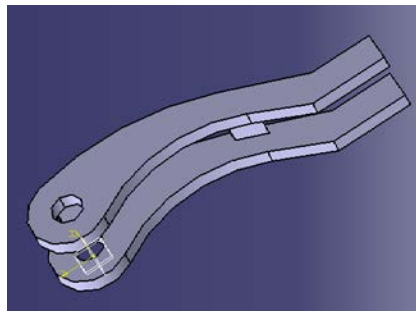
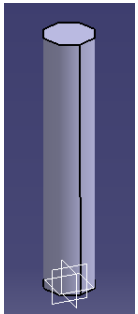
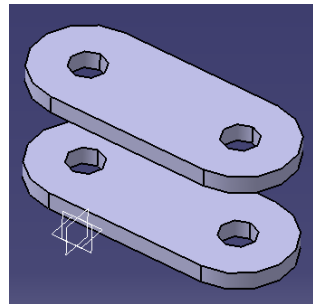
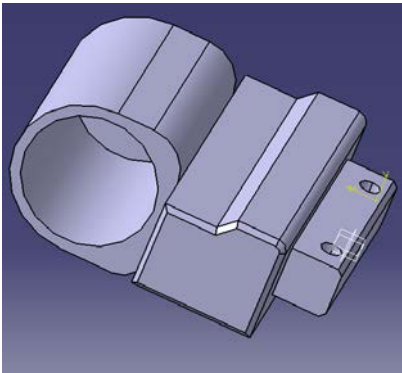


REMOVAL 제작

2. 제작 과정



REMOVAL PART

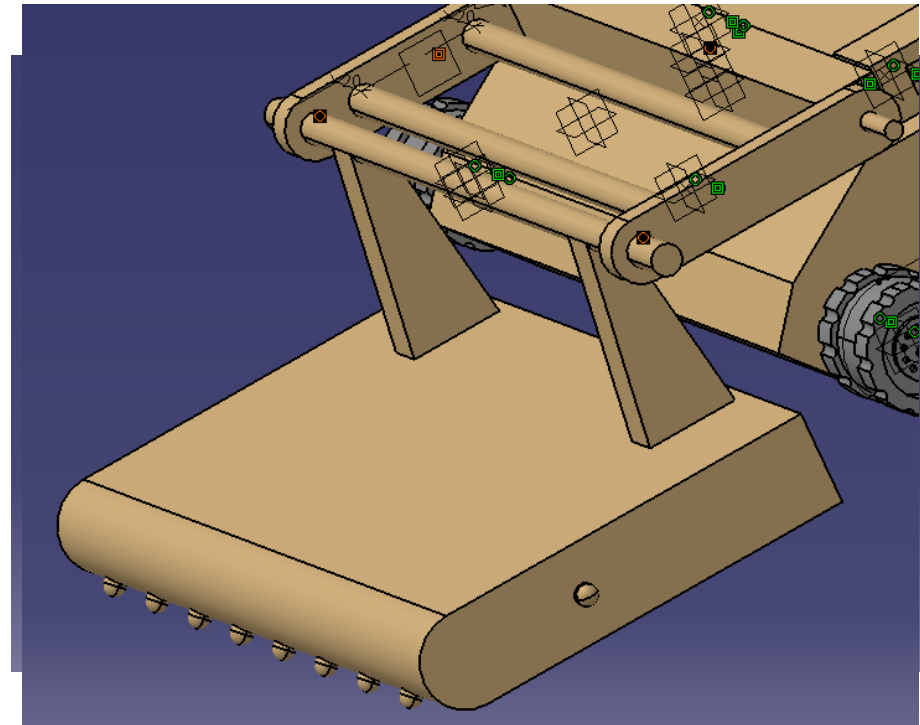
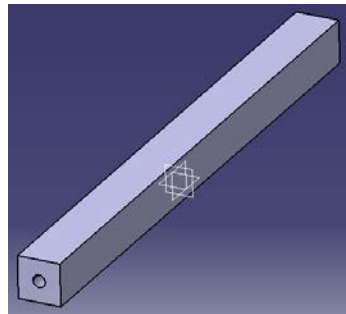
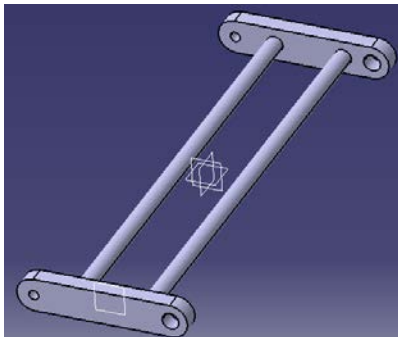
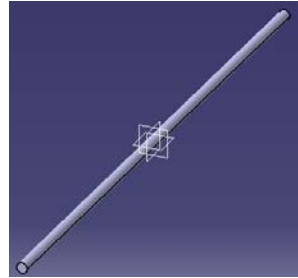
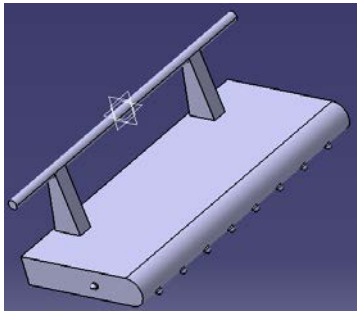


REMOVAL 제작

2. 제작 과정



REMOVAL PART

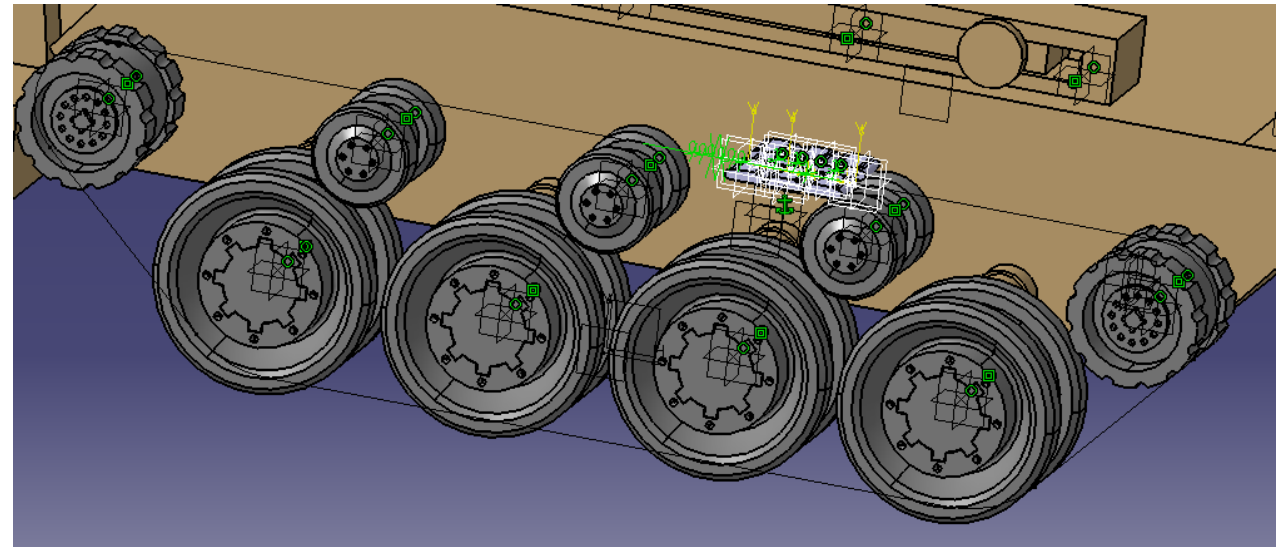
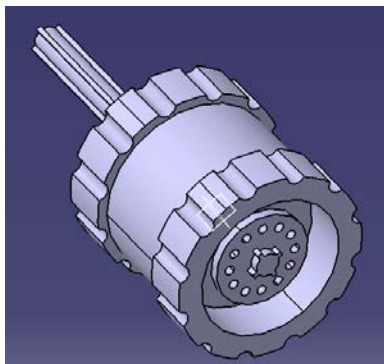
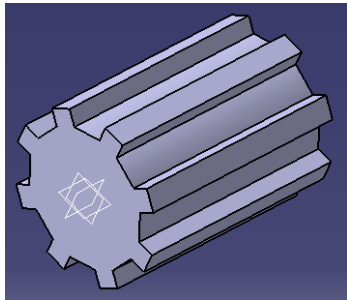
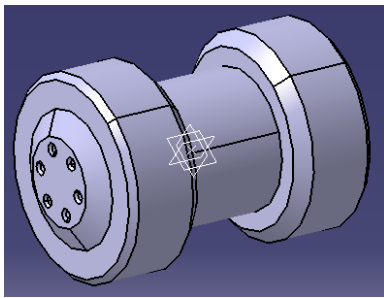
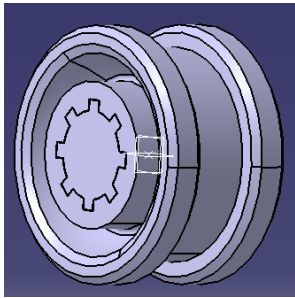


REMOVAL 제작

2. 제작 과정



WHEEL PART

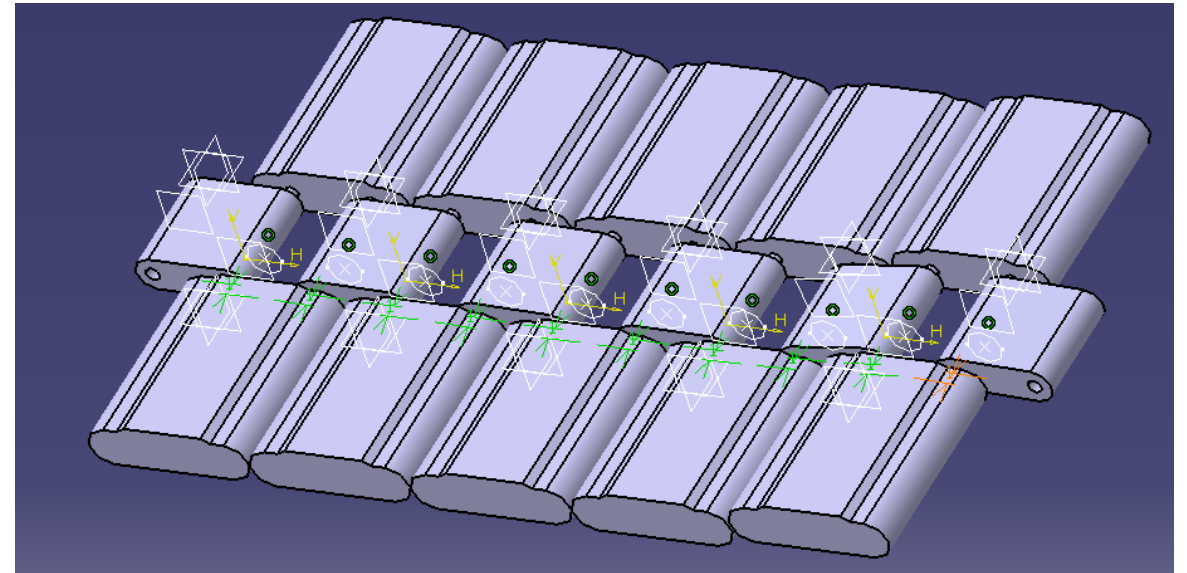
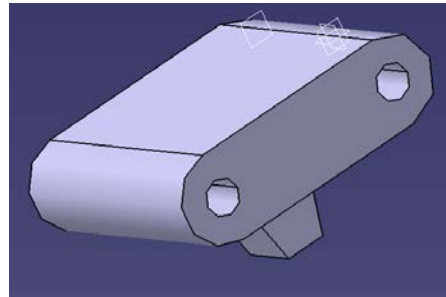
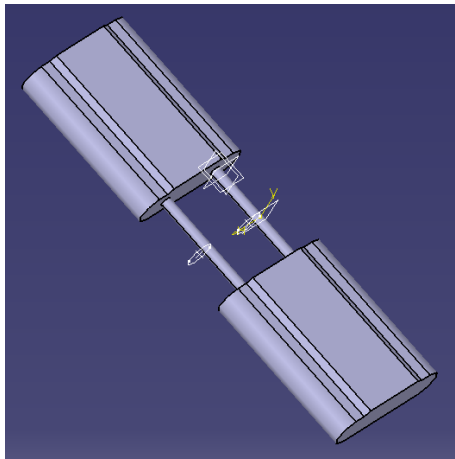


WHEEL 제작

2. 제작 과정

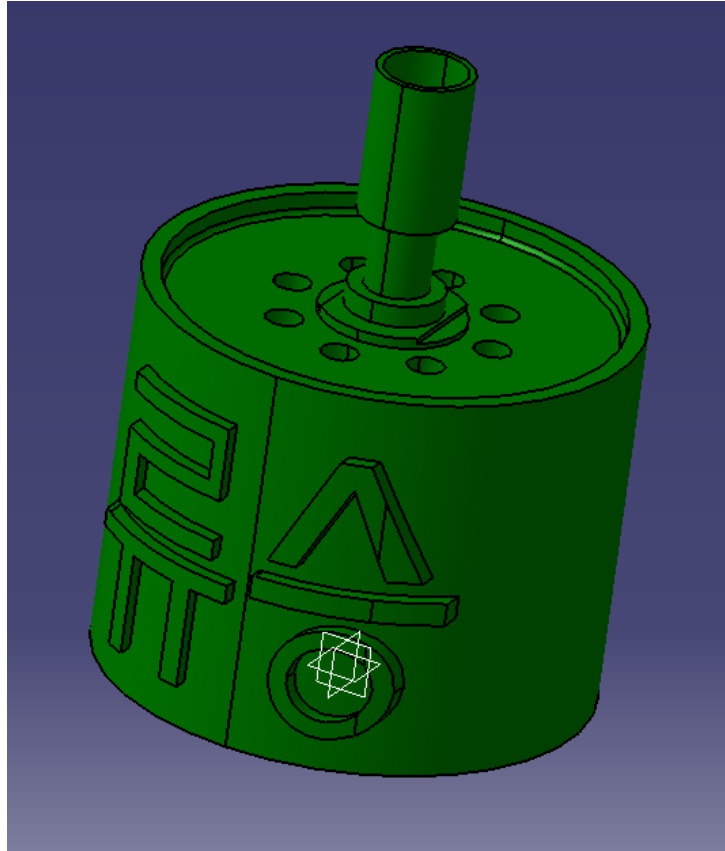


WHEEL PART



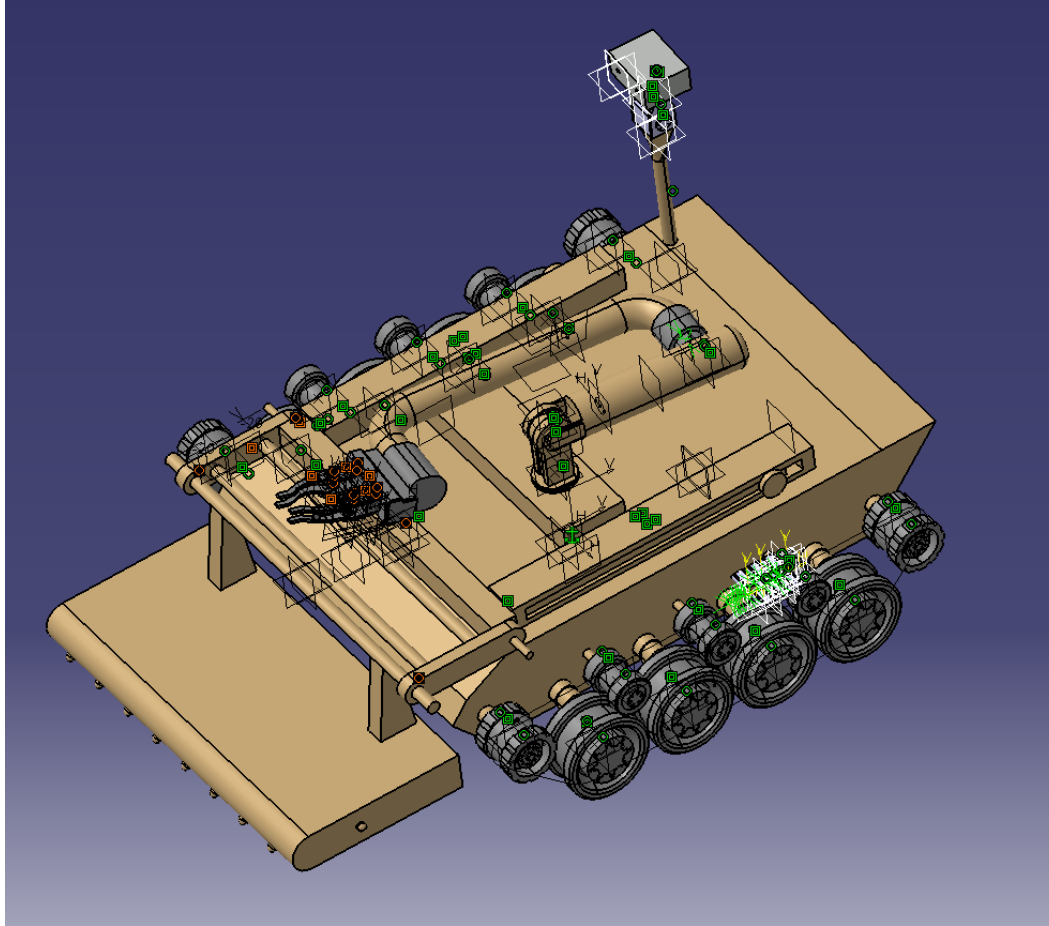
WHEEL 제작

2. 제작 과정



지뢰 제작

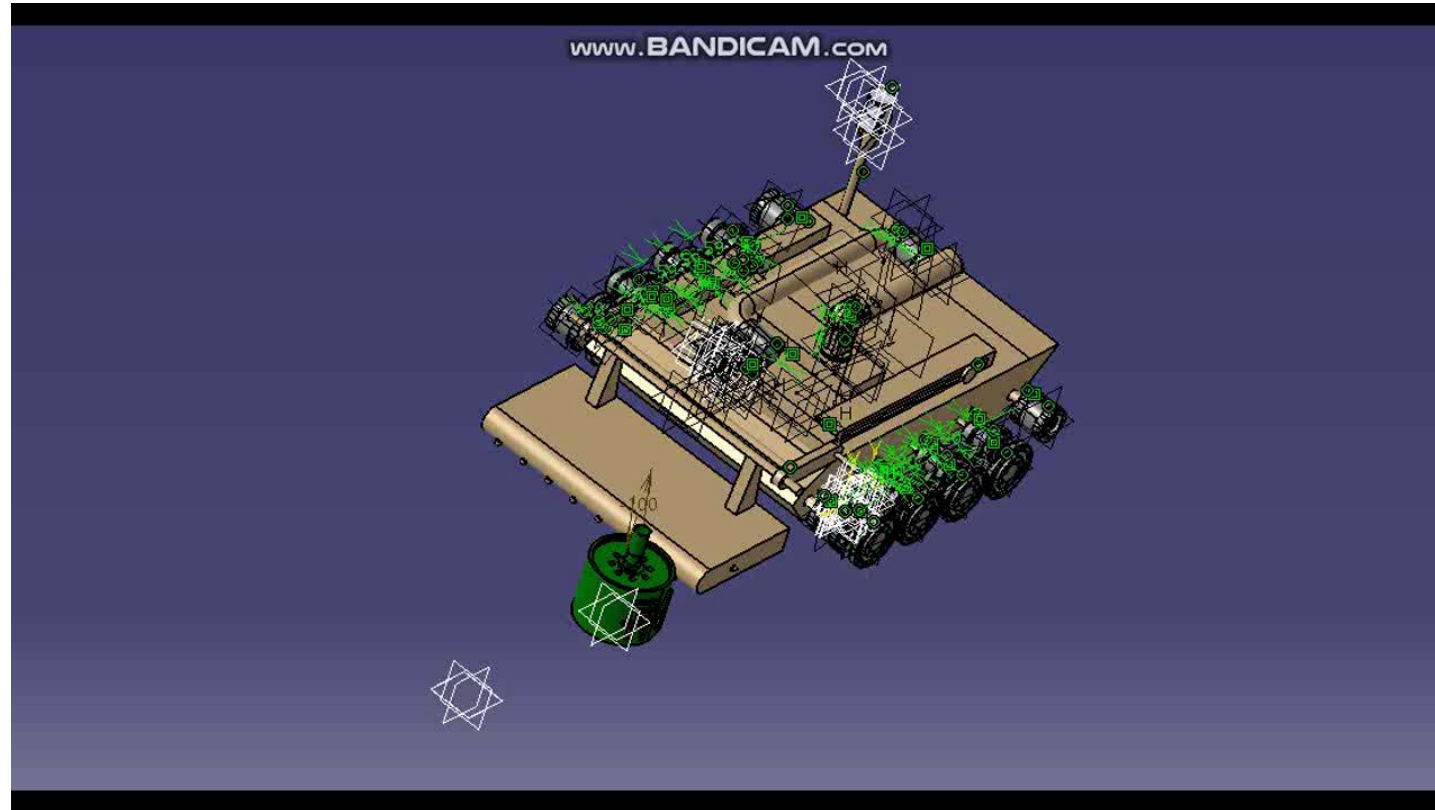
2. 제작 과정



완성품



2. 제작 과정



시연 영상



3. 후기

어려웠던 점

- Chain을 이용한 무한궤도를 사용하여 바퀴의 움직임을 표현하려 하였으나 제작의 복잡성과 시간상의 문제로 해결하지 못하였다.
- 구속조건을 준 상태에서 움직일 때 함께 움직이지 않는 점을 해결하는데 있어서 어려움을 겪었다.
- 개발중인 균용 로봇이라 설계도면을 구하기 힘들어 정확한 수치를 알 수 없어 설계하는 것에 어려움이 있었다.

3. 조원 역할



- 정성오

자료조사
디자인 설정
BODY, 바퀴 제작
PART Design
DMU kinematics
색칠 ✎

- 조경수

PPT 제작
디자인 설정
집게, 탐지부분 제작
BODY, 부품 ASSEMBLY
지뢰 제작

<https://www.youtube.com/watch?v=6xsf8u3VA3k>

<http://ljsljs2.tistory.com/670>

<http://www.hani.co.kr/arti/politics/defense/822631.html>

3,4 페이지 사진 , 참고 모델 출처





감사합니다