A photograph of a person with a beard playing a piano in a dimly lit room. The person is wearing a dark jacket and is focused on the keys. The piano is a dark color, and the lighting is low, creating a moody atmosphere. In the background, there is a dark bag or case on a surface.

하반신 장애인을 위한 피아노 설계

조명 : 도레미솔

2013001865 박찬우
2014002415 우석원

조명 선정 이유 (도레미솔)



1. 완벽한 카드에도 한계점이 있을까?
2. 소리 기능이 없음을 깨달음
3. 카드에 소리 기능이 생겼으면 하는 바람에서 조명을 선정.

주제 선정 배경



2016 아트위캔 피아노콘서트이상우 (자폐성장애2급)L. v. Beethoven
Sonate No. 14 'Moonlight' Op27-2 3rd mov.

피아노의 작동원리



건반을 누름

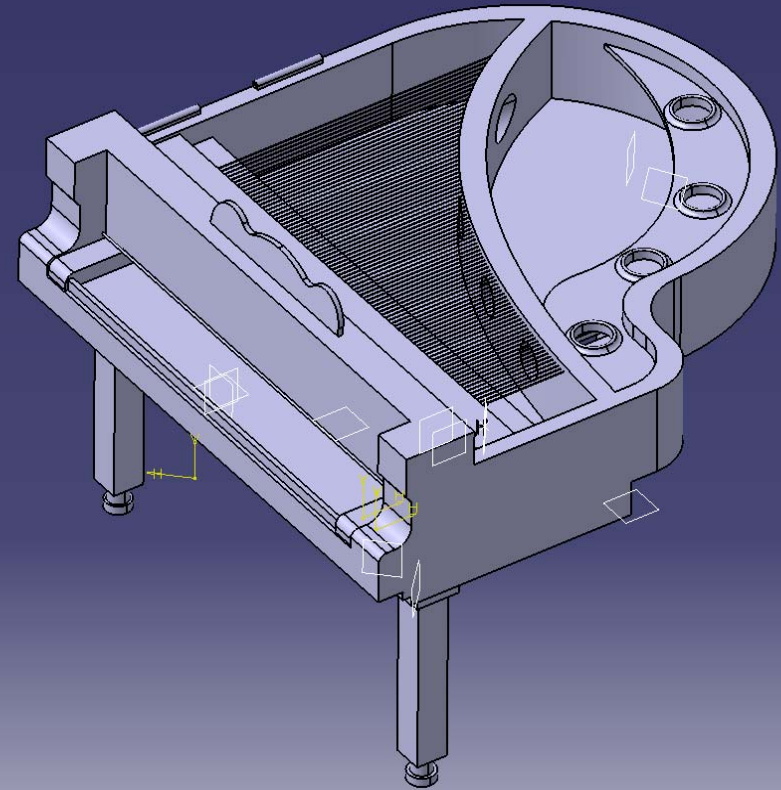
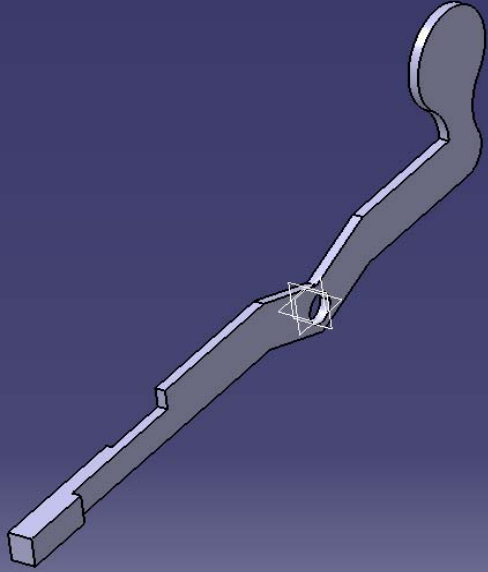
건반이 줄을 침

줄의 진동음을
증폭

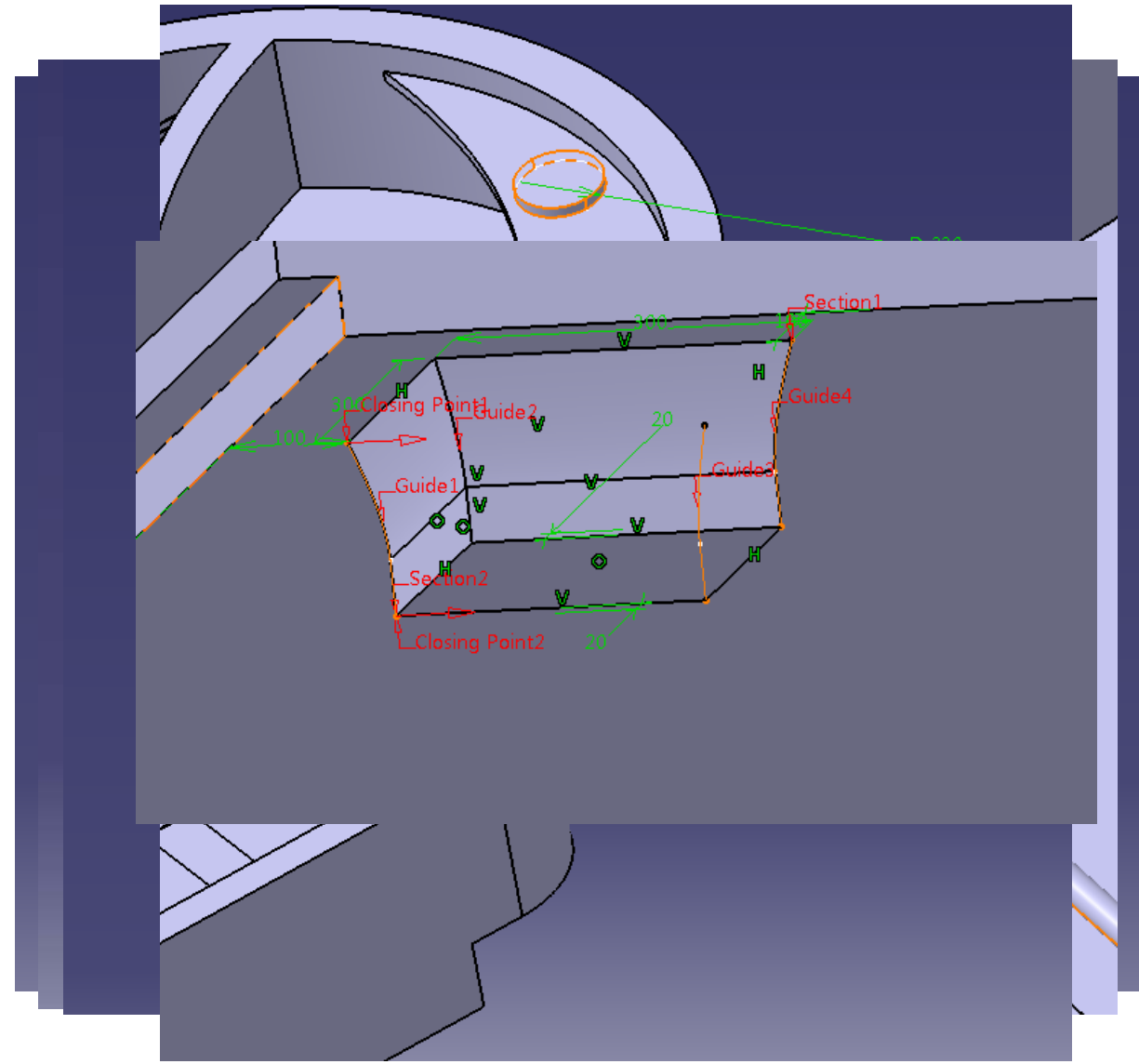
설계 과정



설계 과정



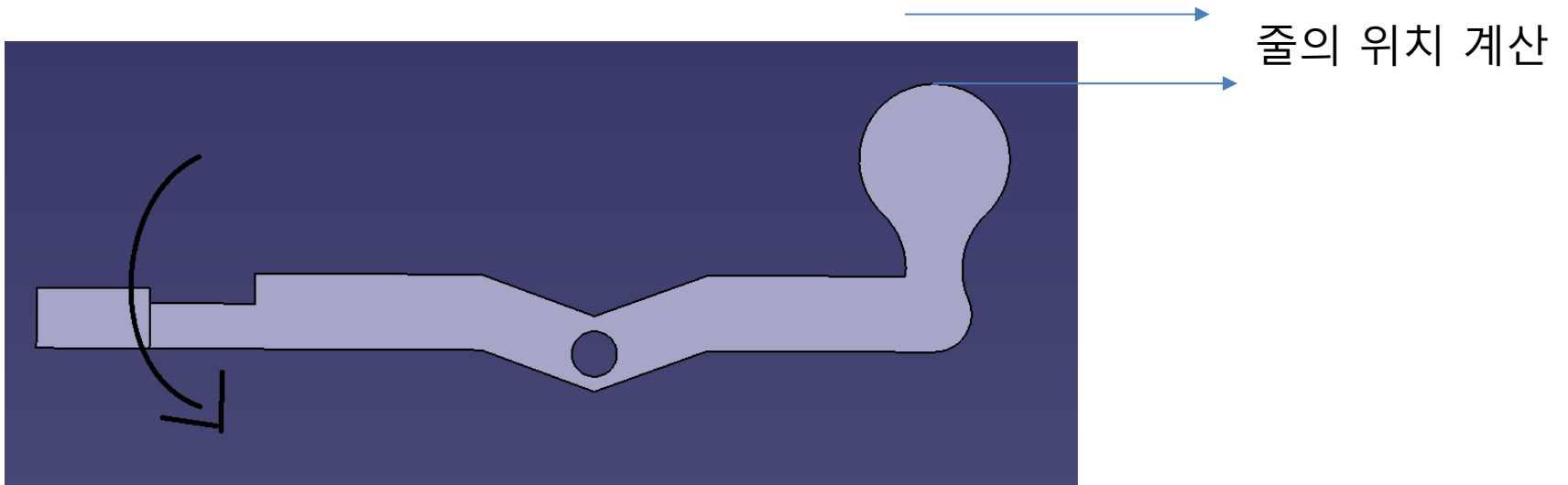
설계 과정



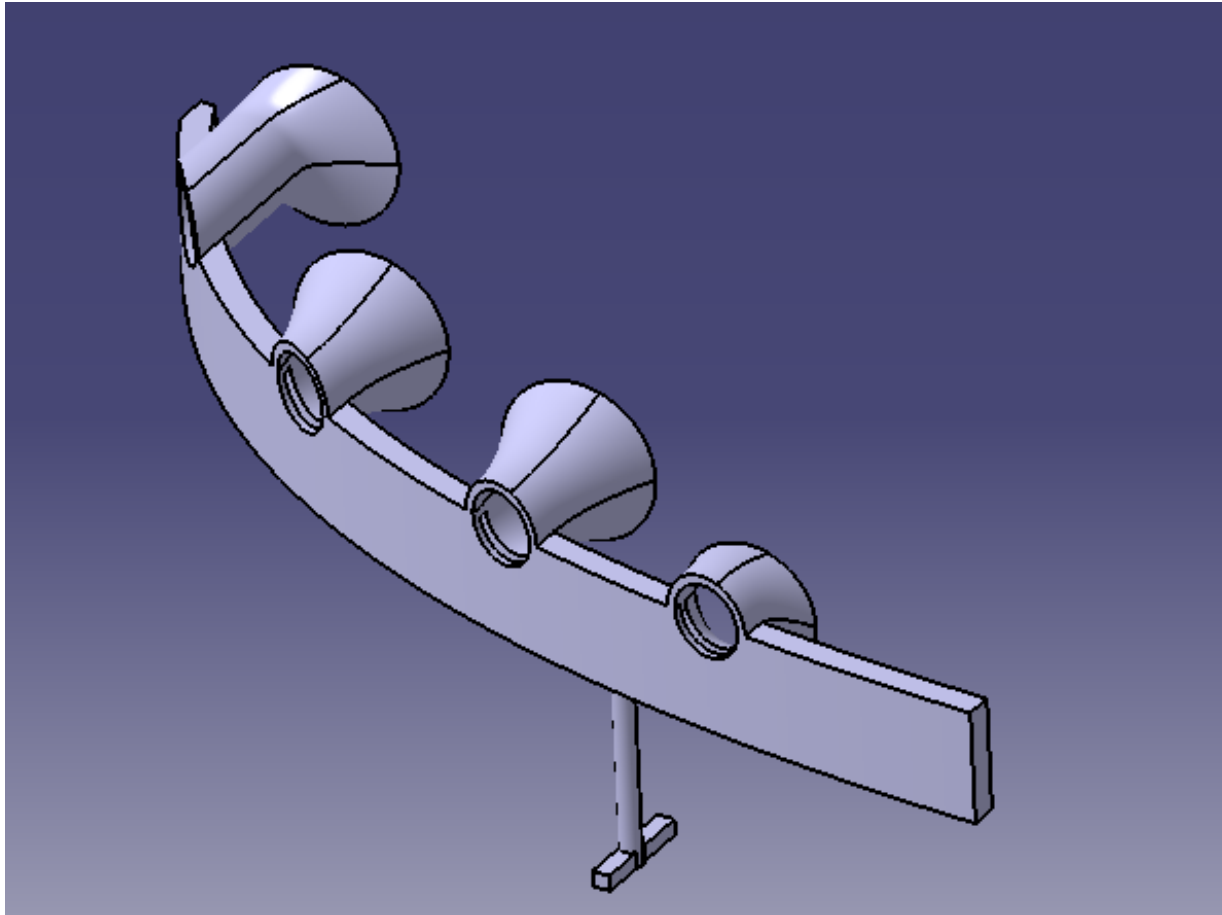
설계 과정



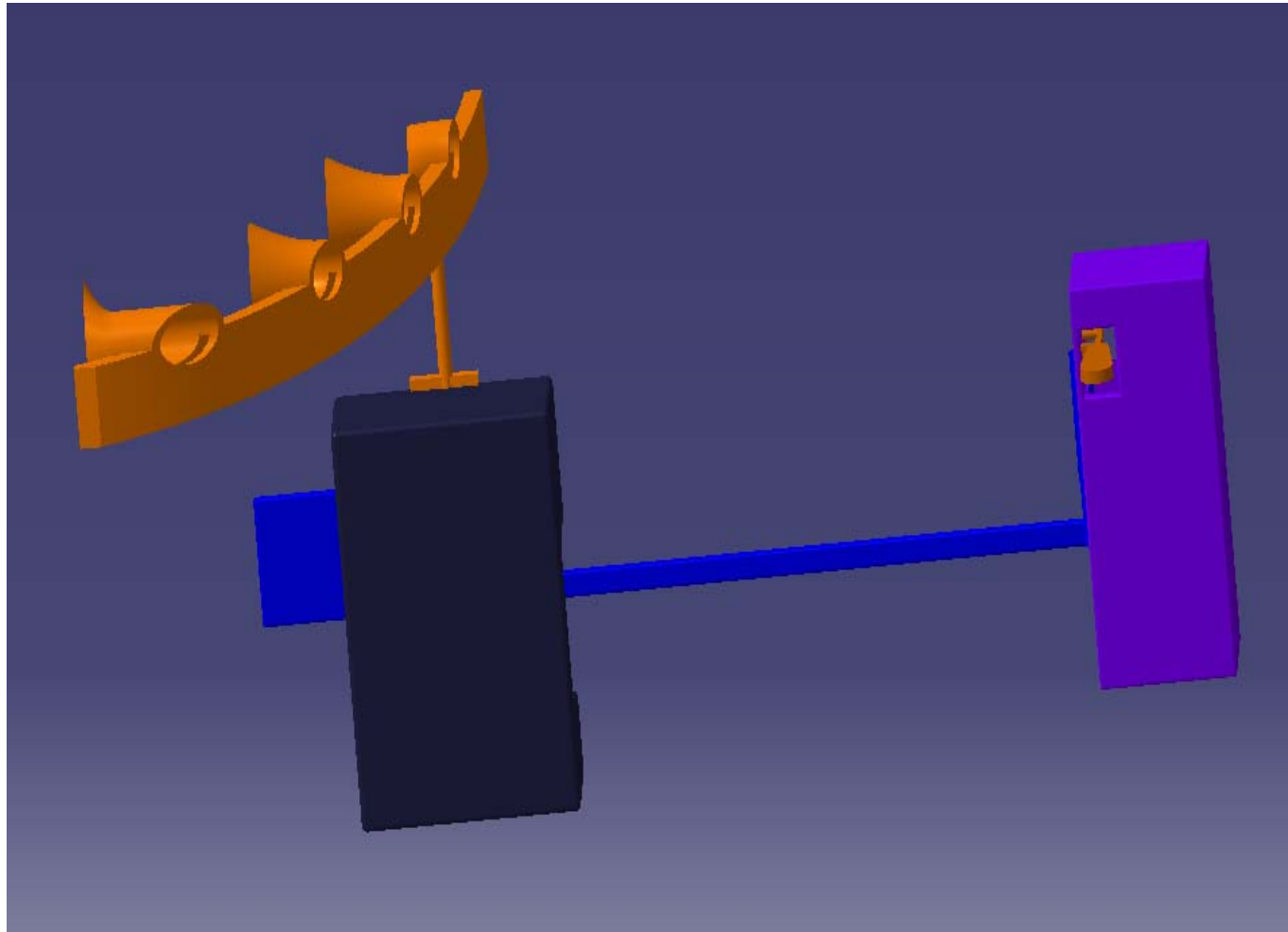
설계 과정



설계 과정



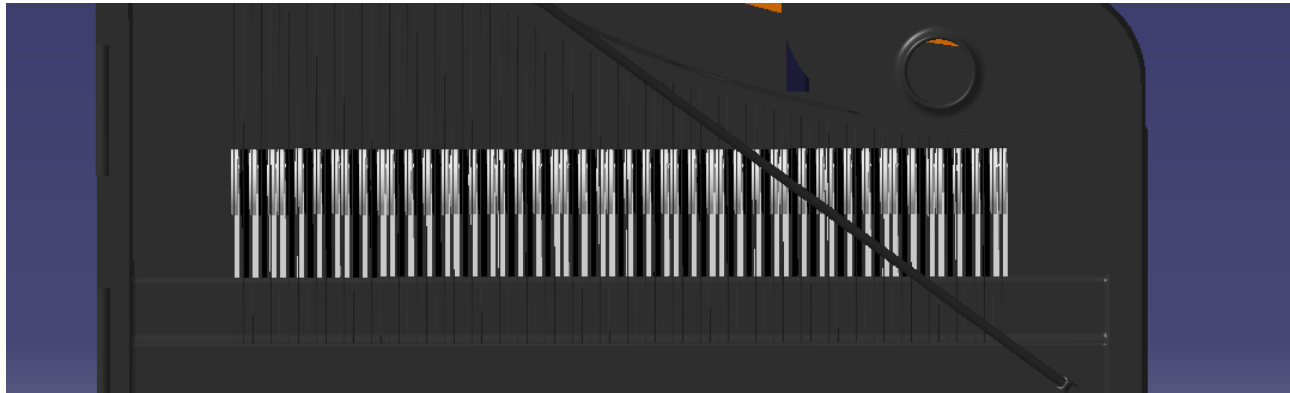
DMU KINEMATICS 구현



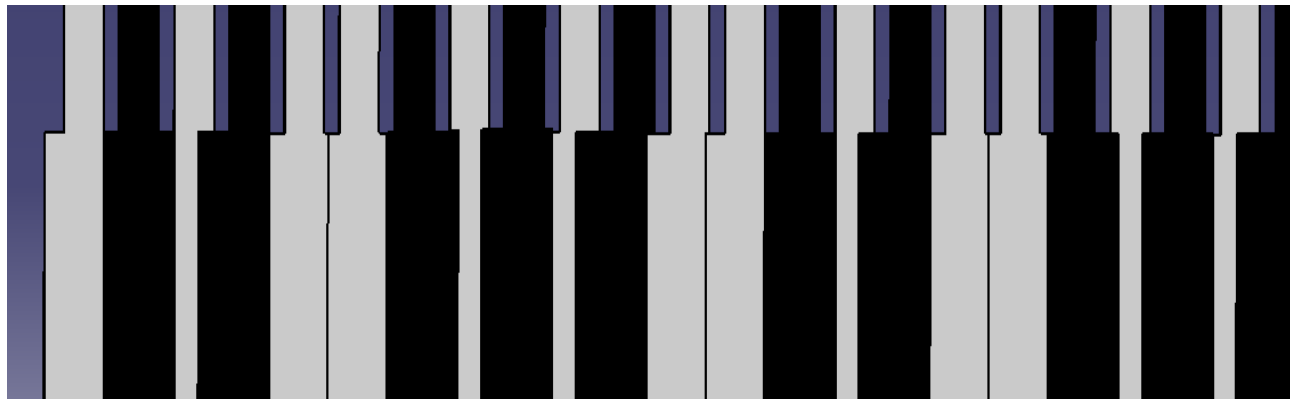
제작 시 어려웠던 점



1. 너무 많은 건반의 개수

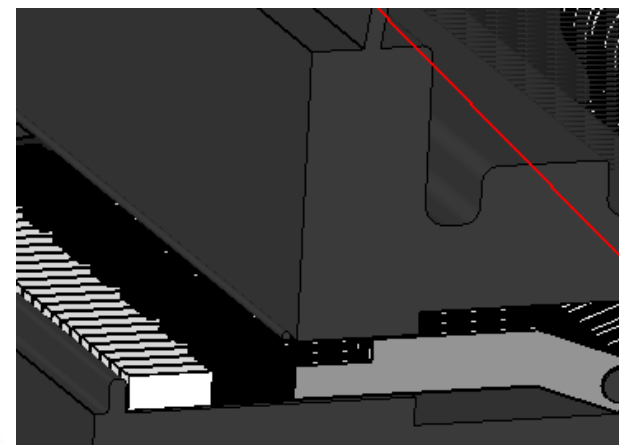
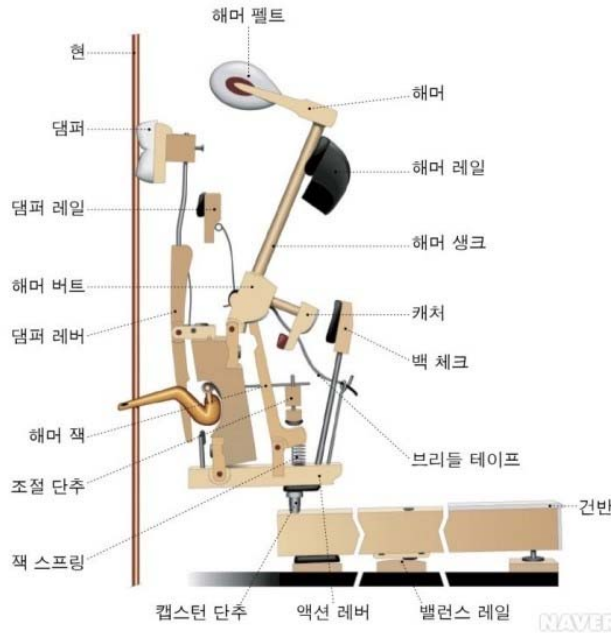
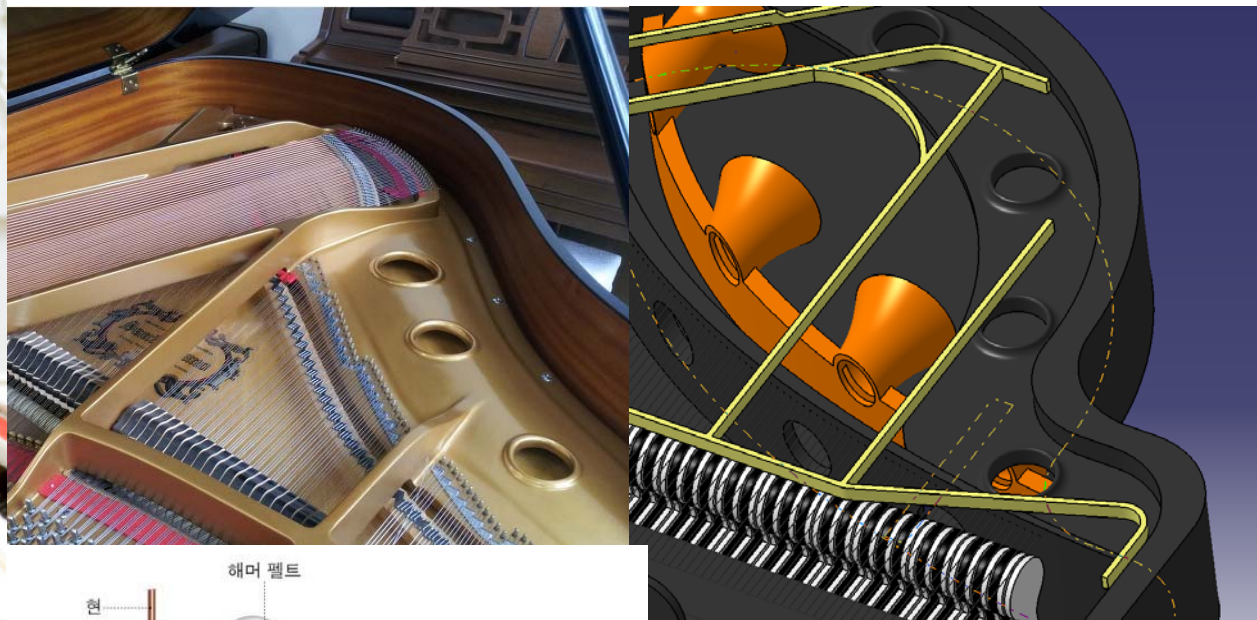


2. 다양한 시행착오들



실제 피아노와의 경쟁력 및 차이점

피아니스트 이희아 "무릎 수술...나아서 피아노 연주할래요"



동영상



월광 소나타 1악장 도입부

<https://youtu.be/5EOXxdsKgJk>

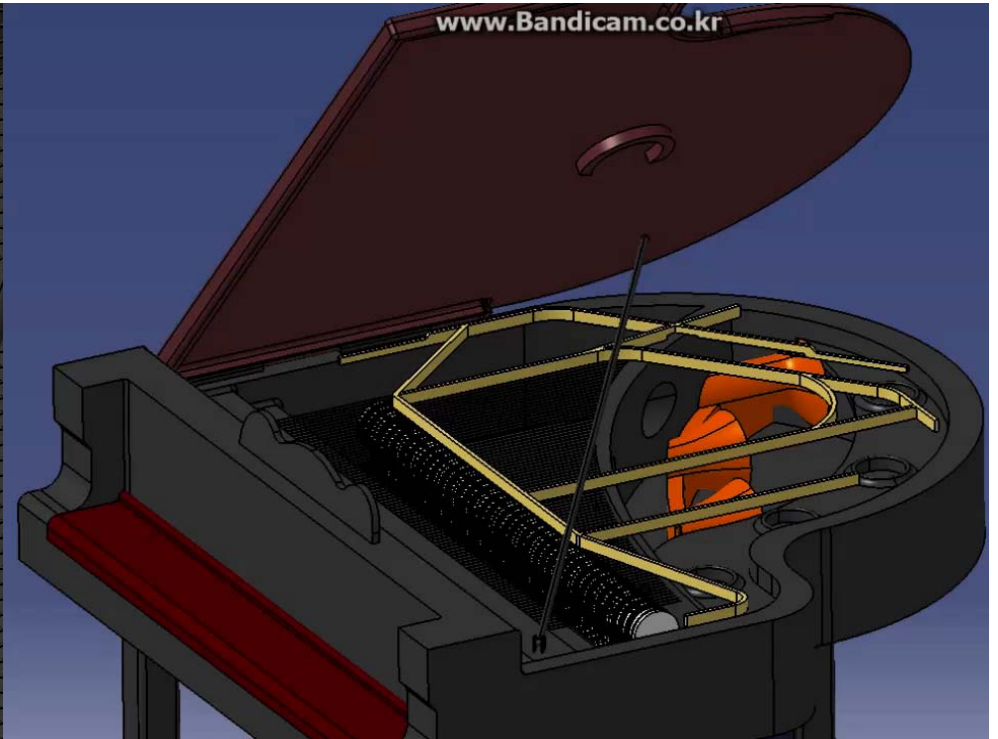
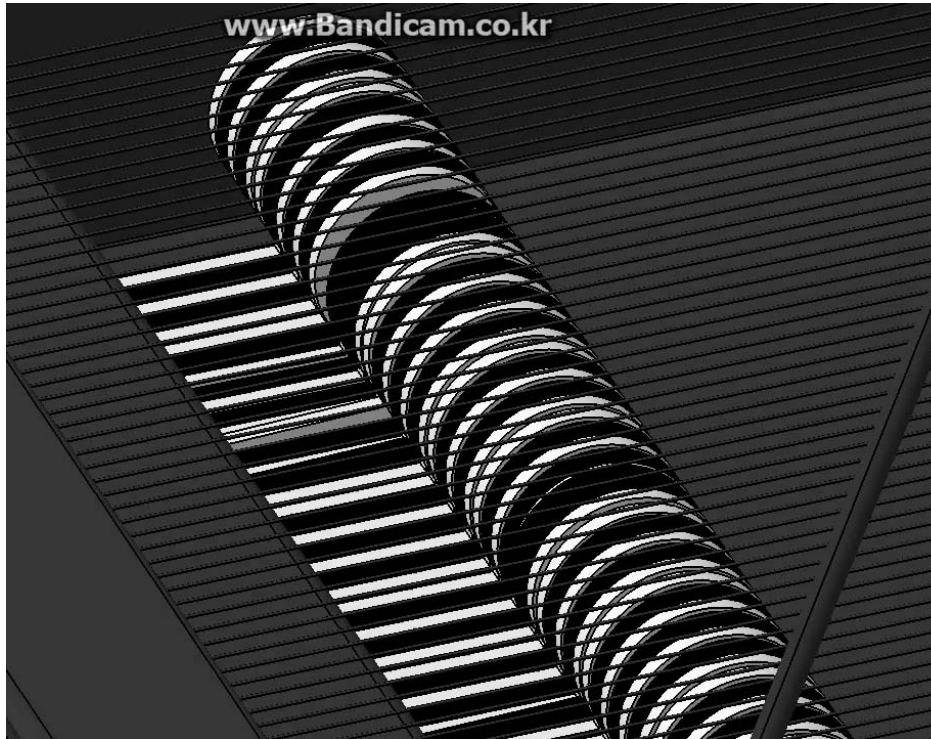


사진 출처



[첨부사진](#)

<http://blog.daum.net/isaac-piano/176>

http://m.inven.co.kr/board/powerbbs.php?come_idx=762&l=245741

<http://www.edaily.co.kr/news/NewsRead.edy?SCD=JI71&newsid=01367766615898088&DCD=A407&OutLnkChk=Y>

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