

Portfolio

Top Class Mechanical Engineer

Kim,Dongho

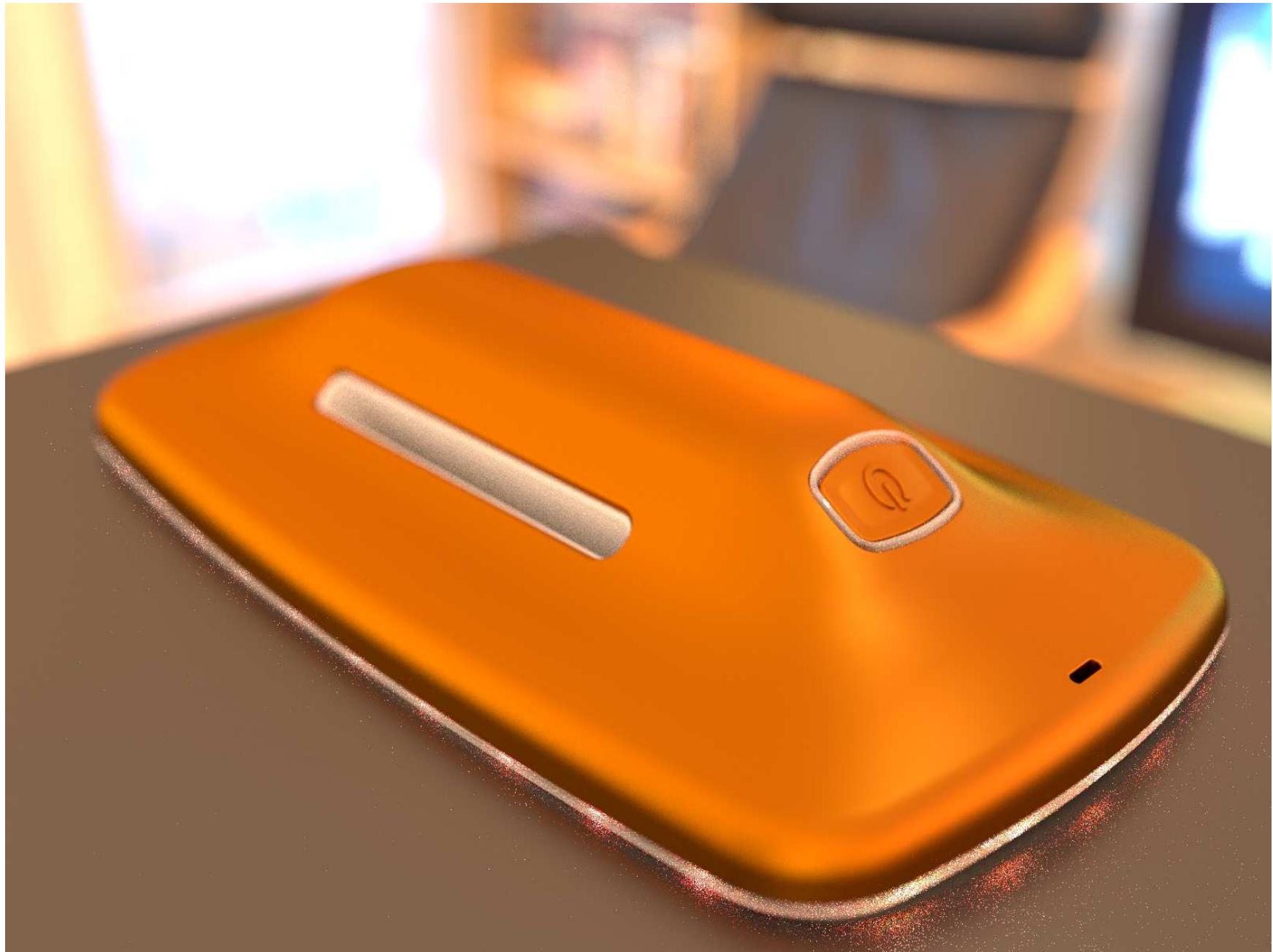
dymaxion.kim@gmail.com



Healthcare

2017~2018

- Aalok



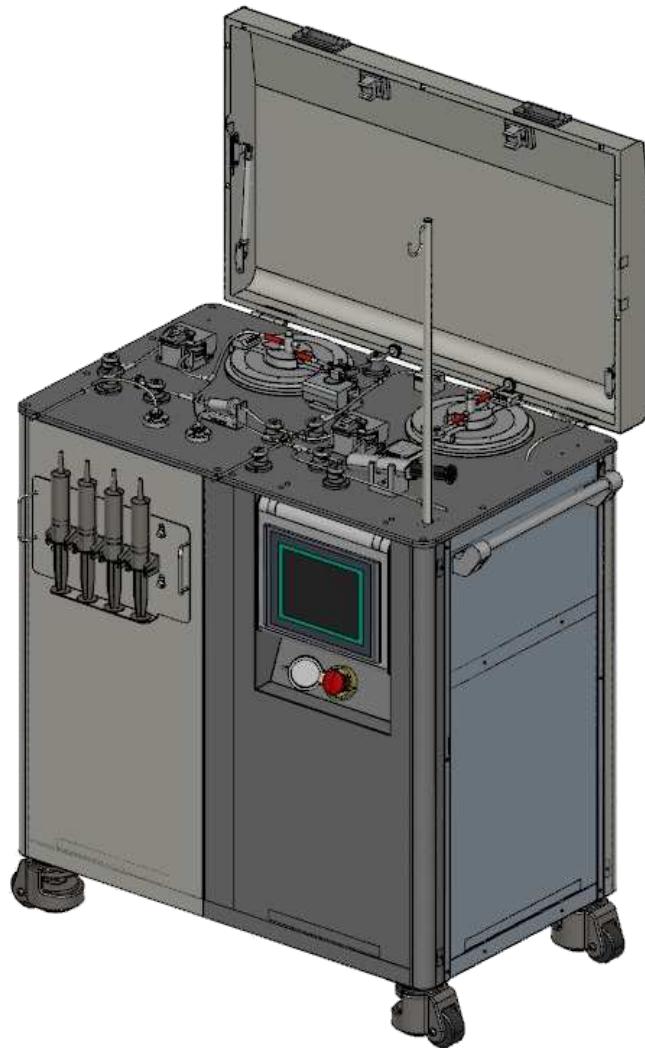
- LLT-1



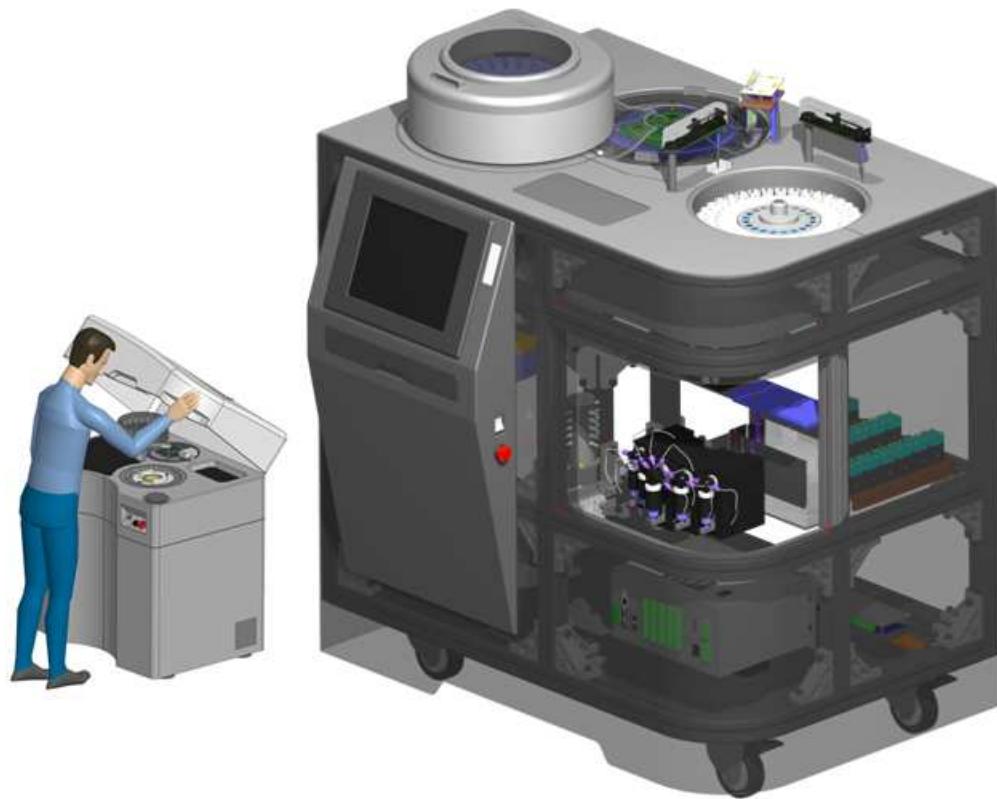
Medical Devices

2017~2018

- **SCELDIS**



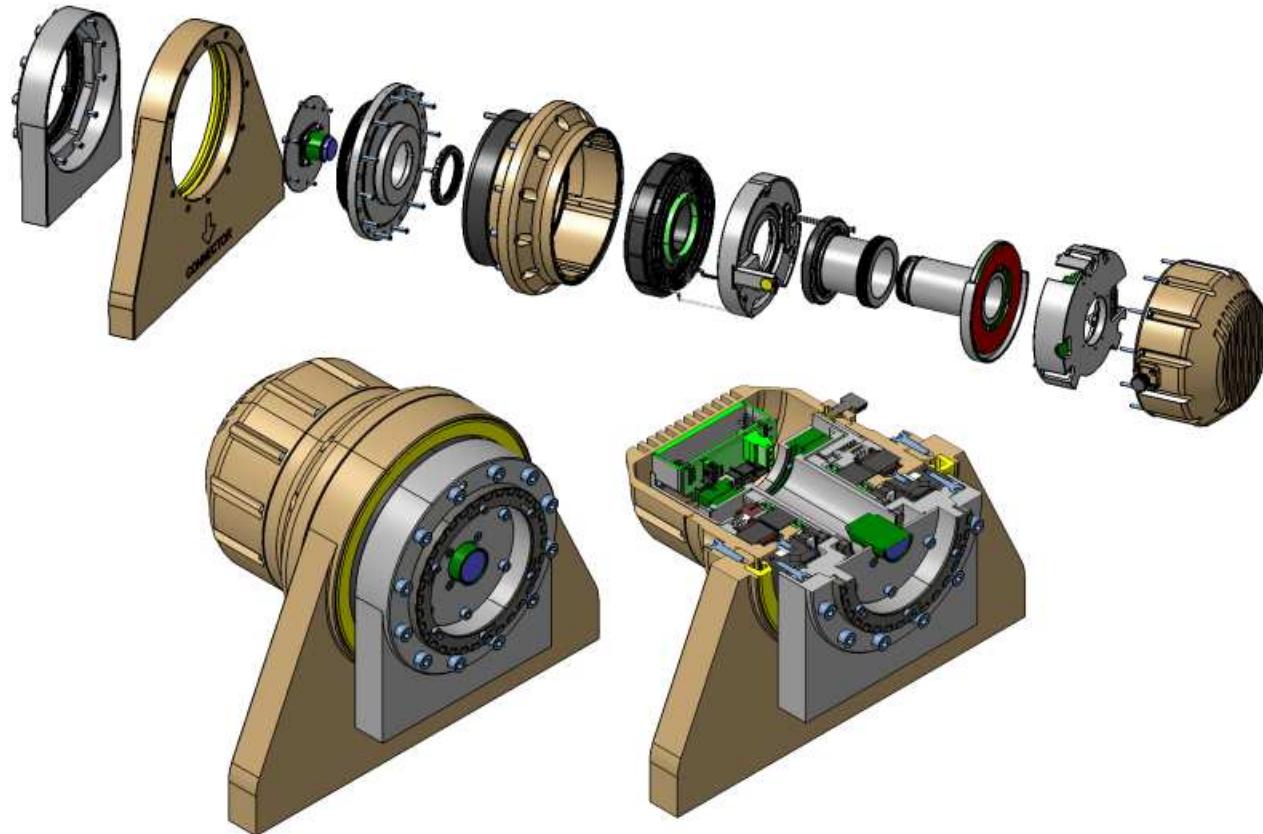
- **BIO**



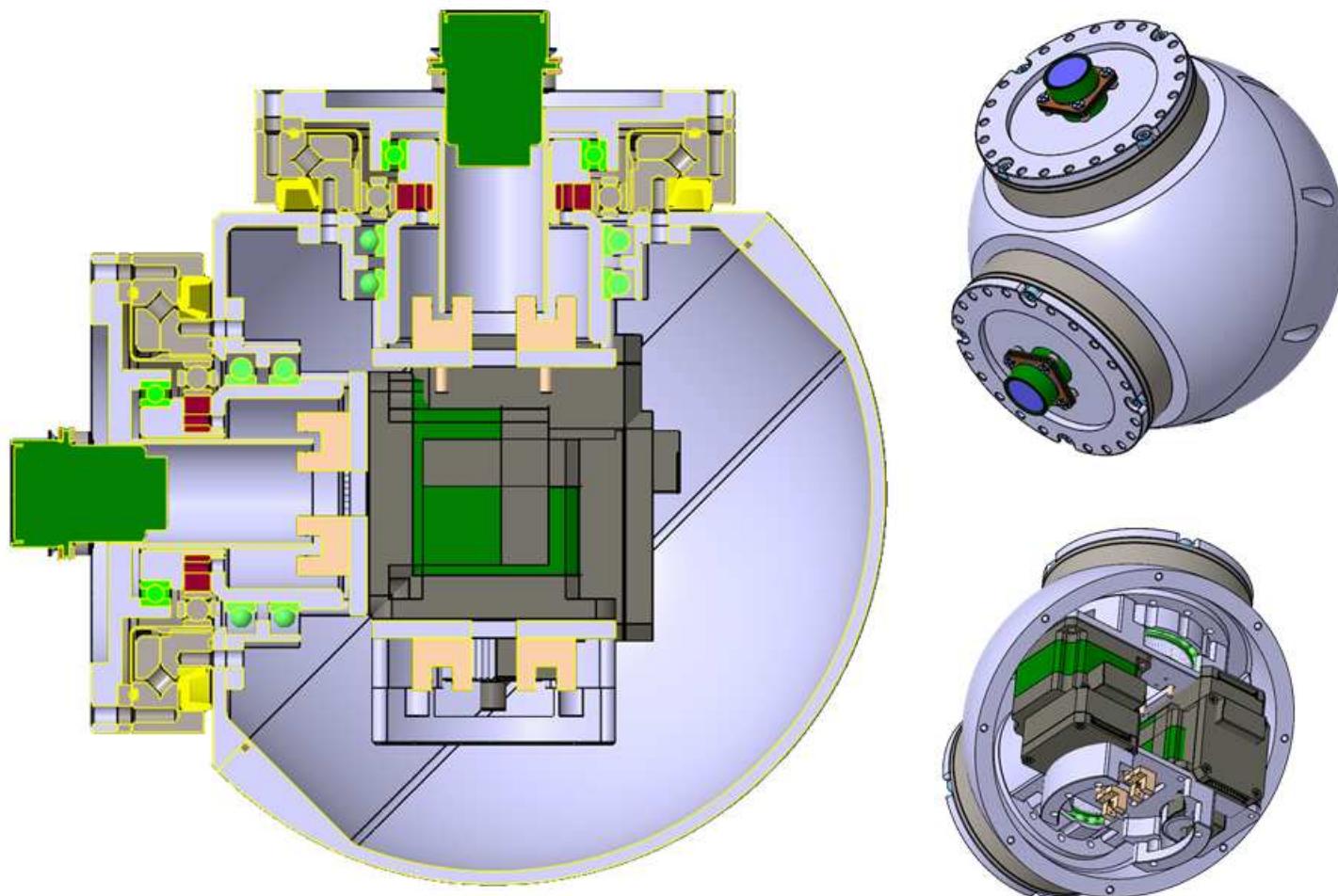
Defence Robots

2015~2016

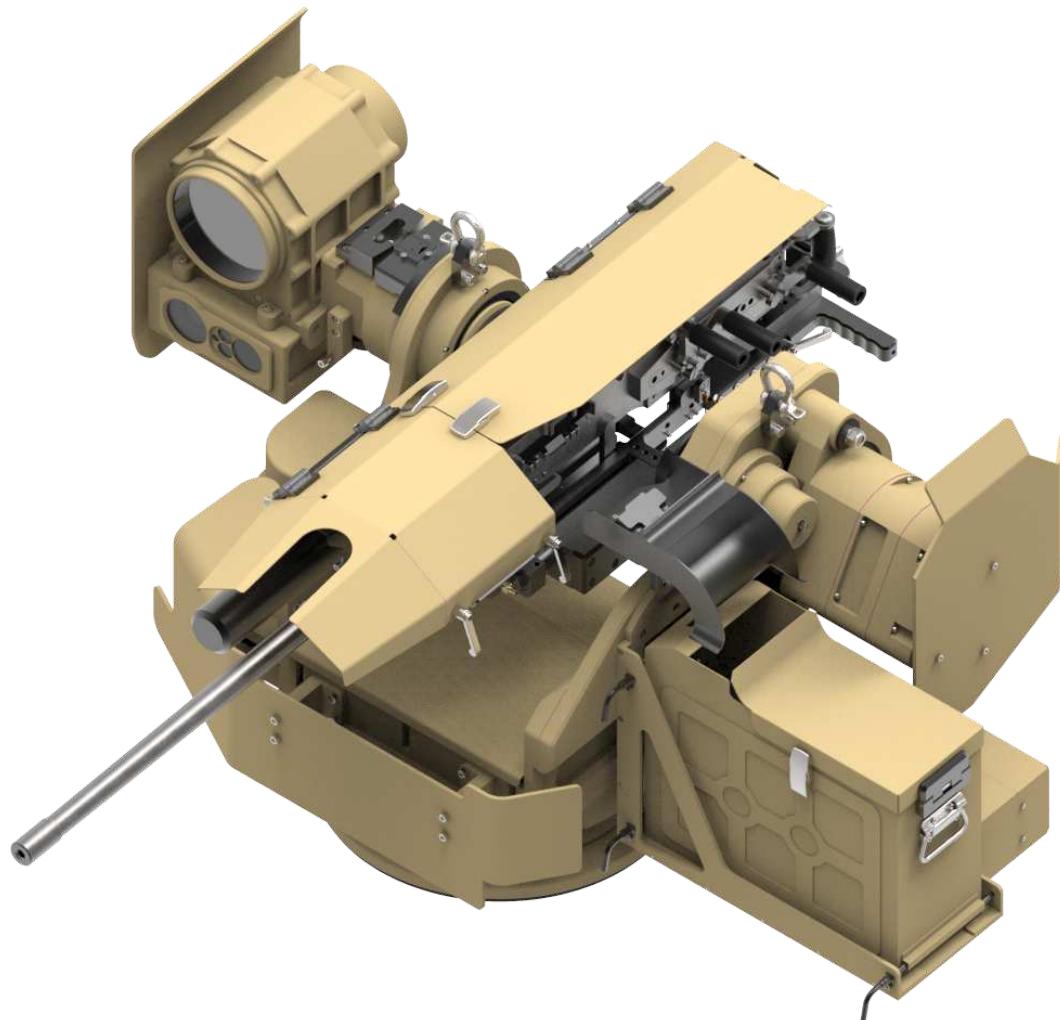
- Modulized Smart Actuator for RCWS



- Modulized PTZ for RCWS



- Remote Control Weapon System



- Remote Control Weapon System



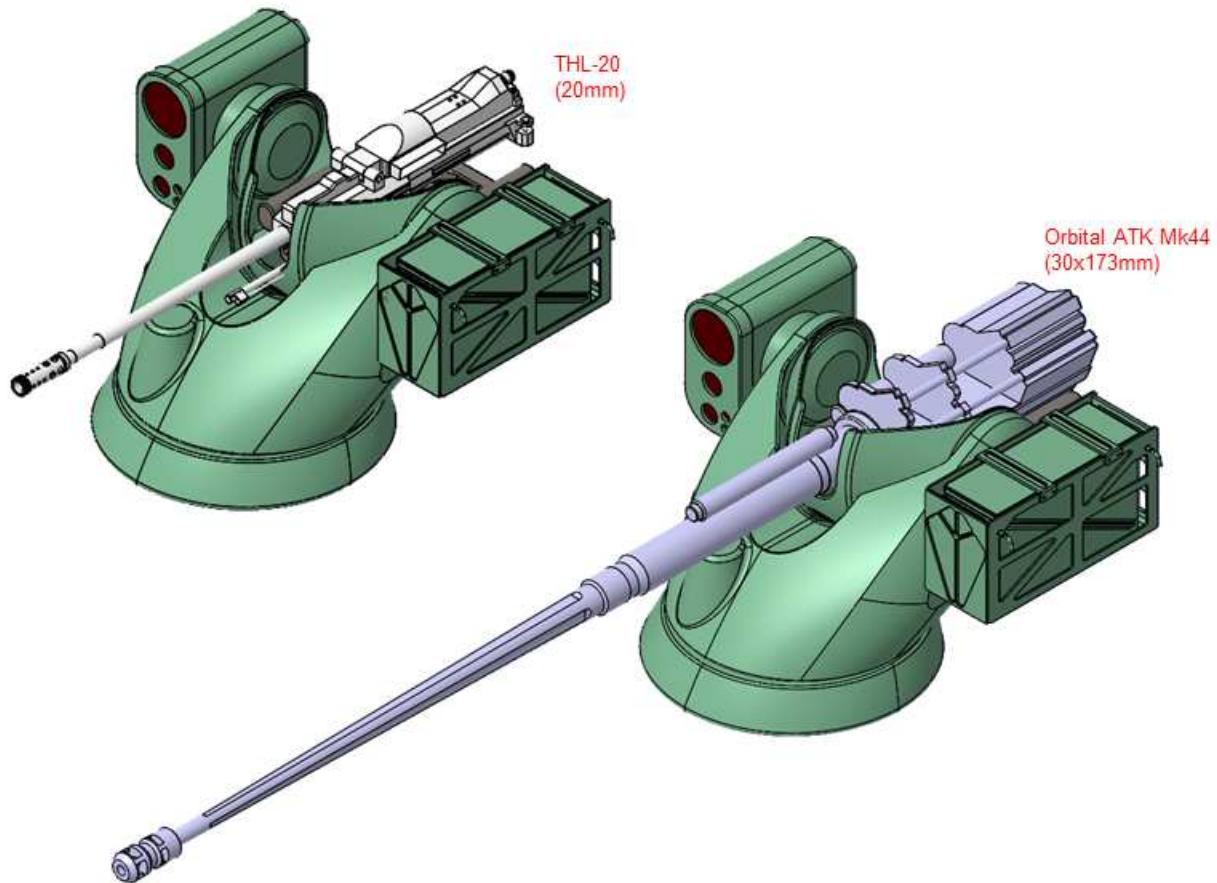
- Shooting Test 



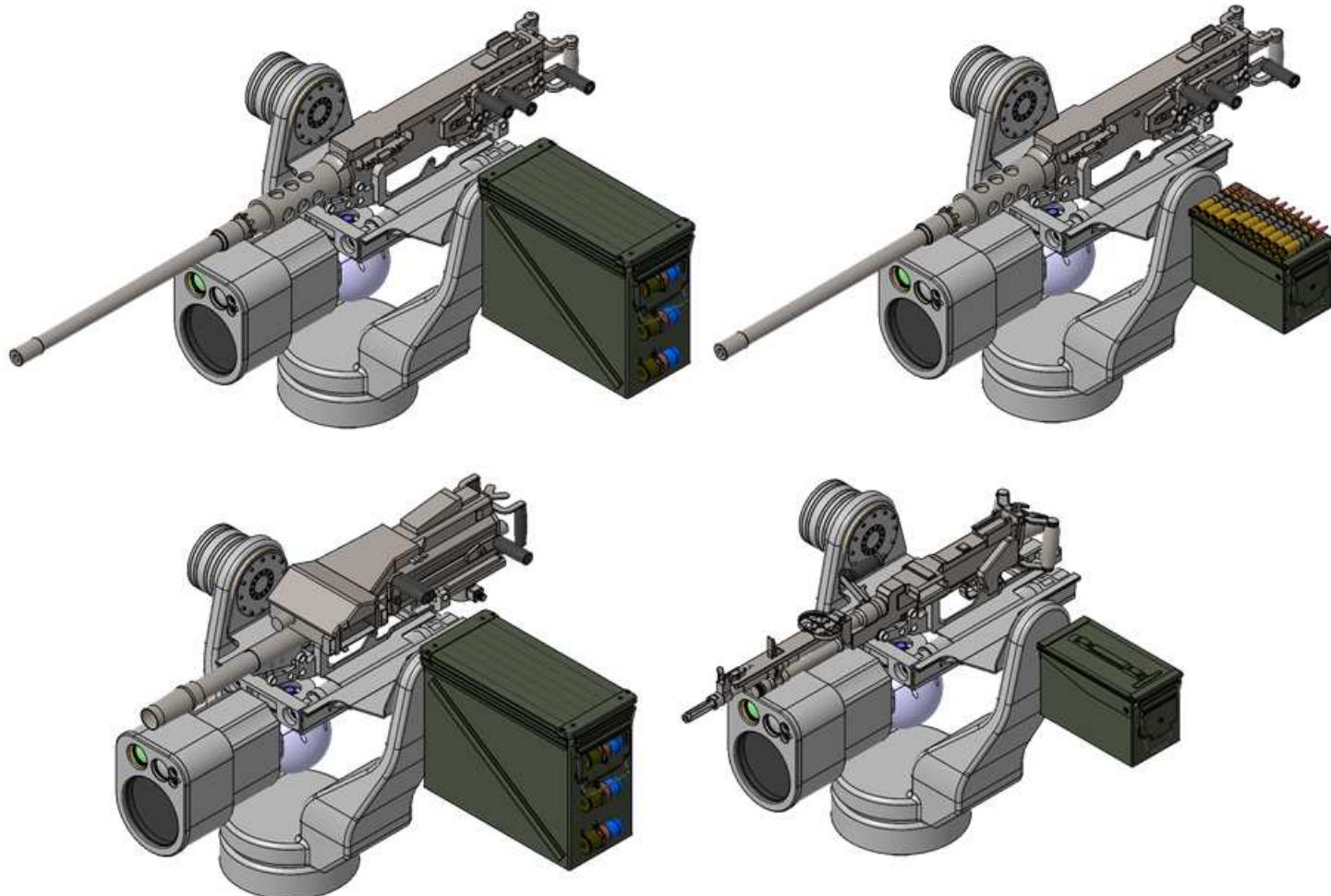
- Export abroad



- HRCWS for 20mm, 30mm



- SRCWS for 7.62mm, 12.7mm, 40mm



Mobile Robots

2007~2015

- UROBO



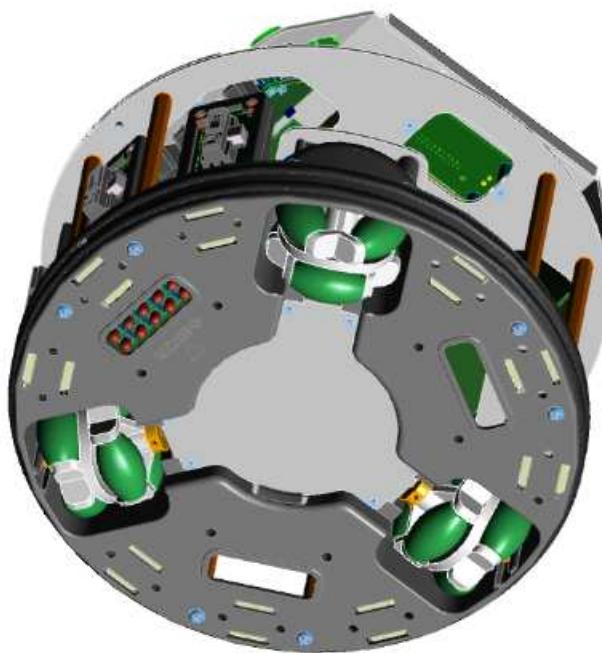
- UBOT fot KT 



- THIN 



- HOLOMOMIC 



- SILVER



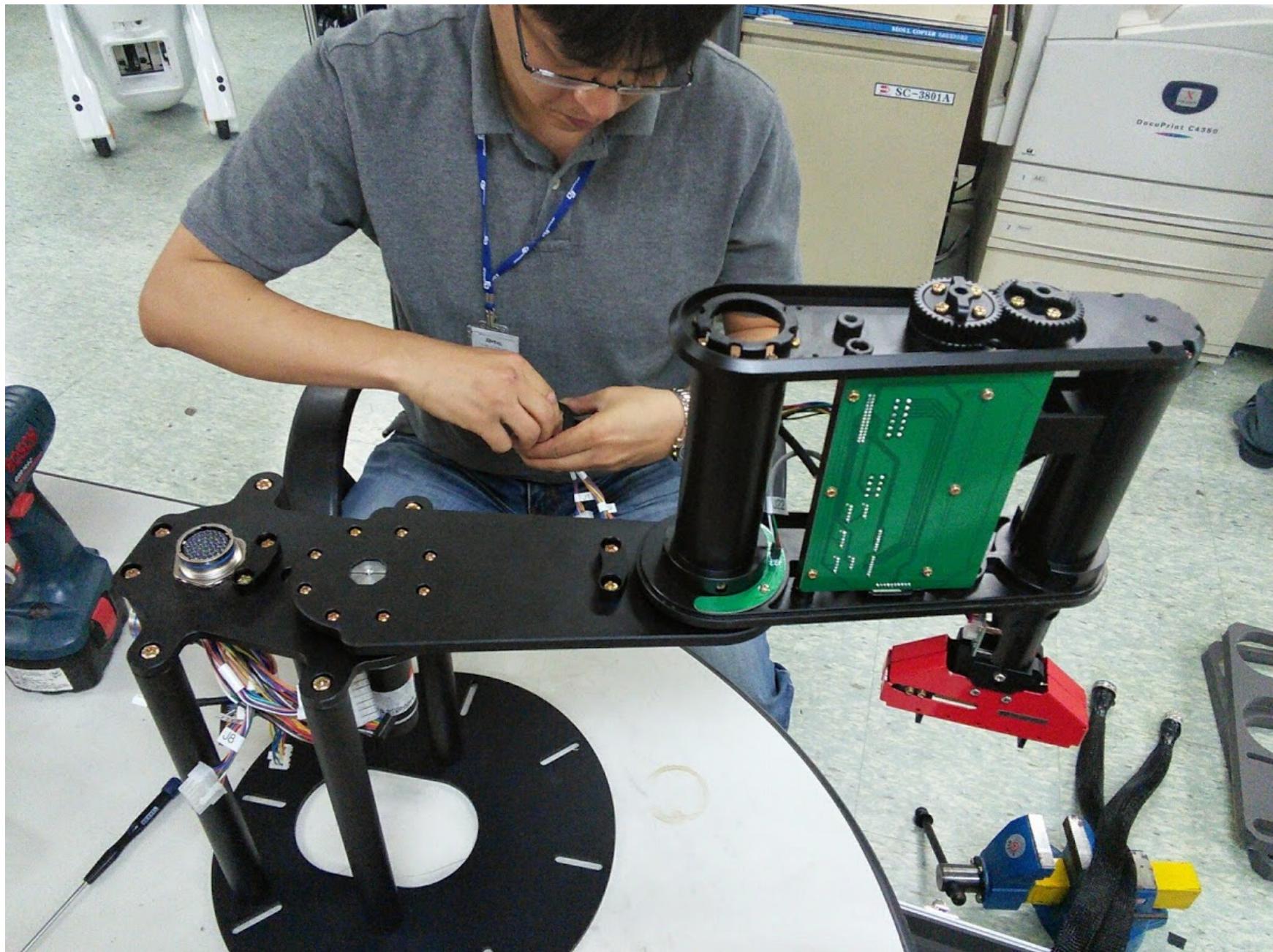
- SILVER in exhibition



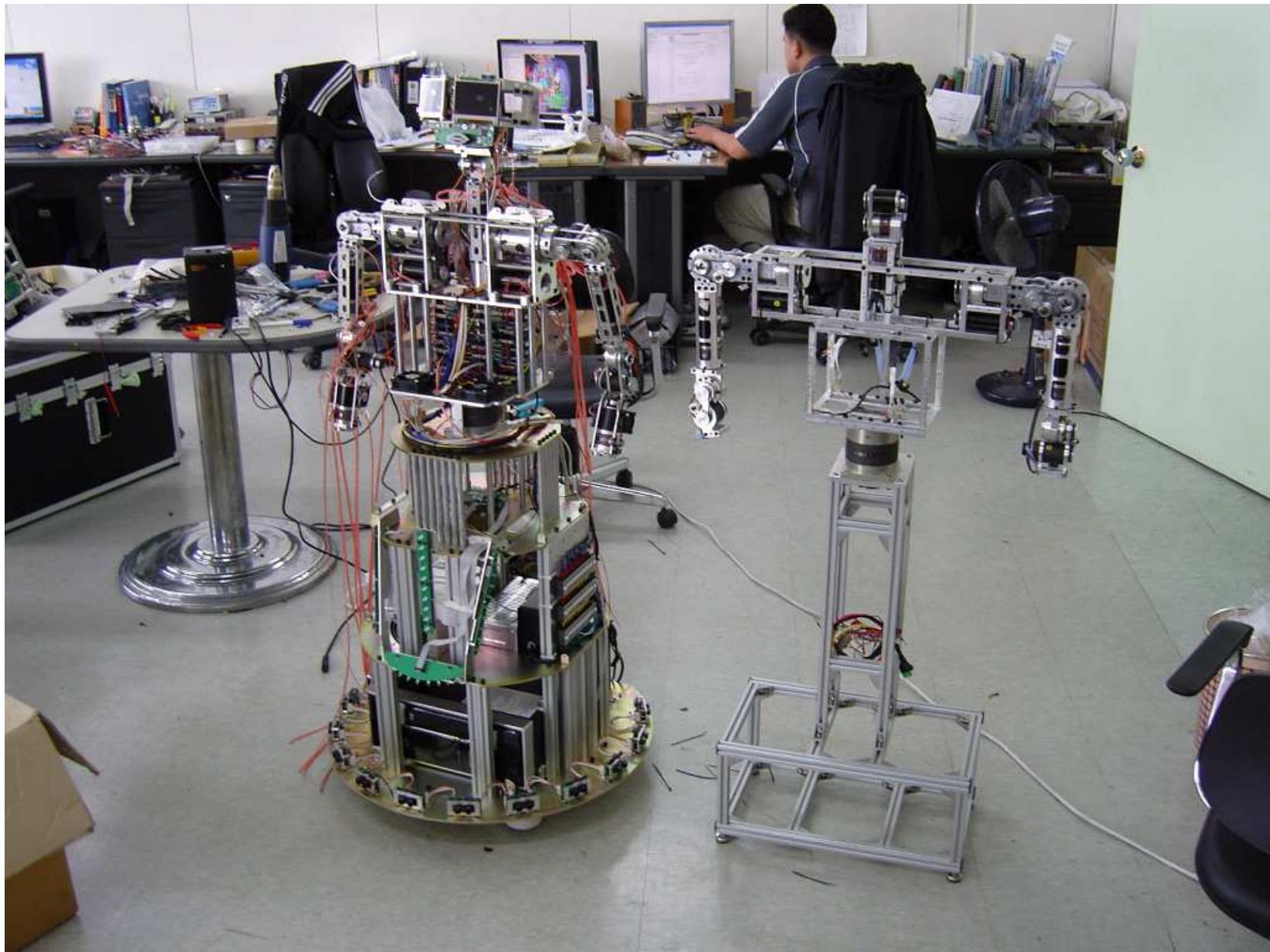
Arm Robots

2007~2015

- SCARA



- ARO Prototype (2007)



- ARO1 (2008)



- ARO2 (2009) 



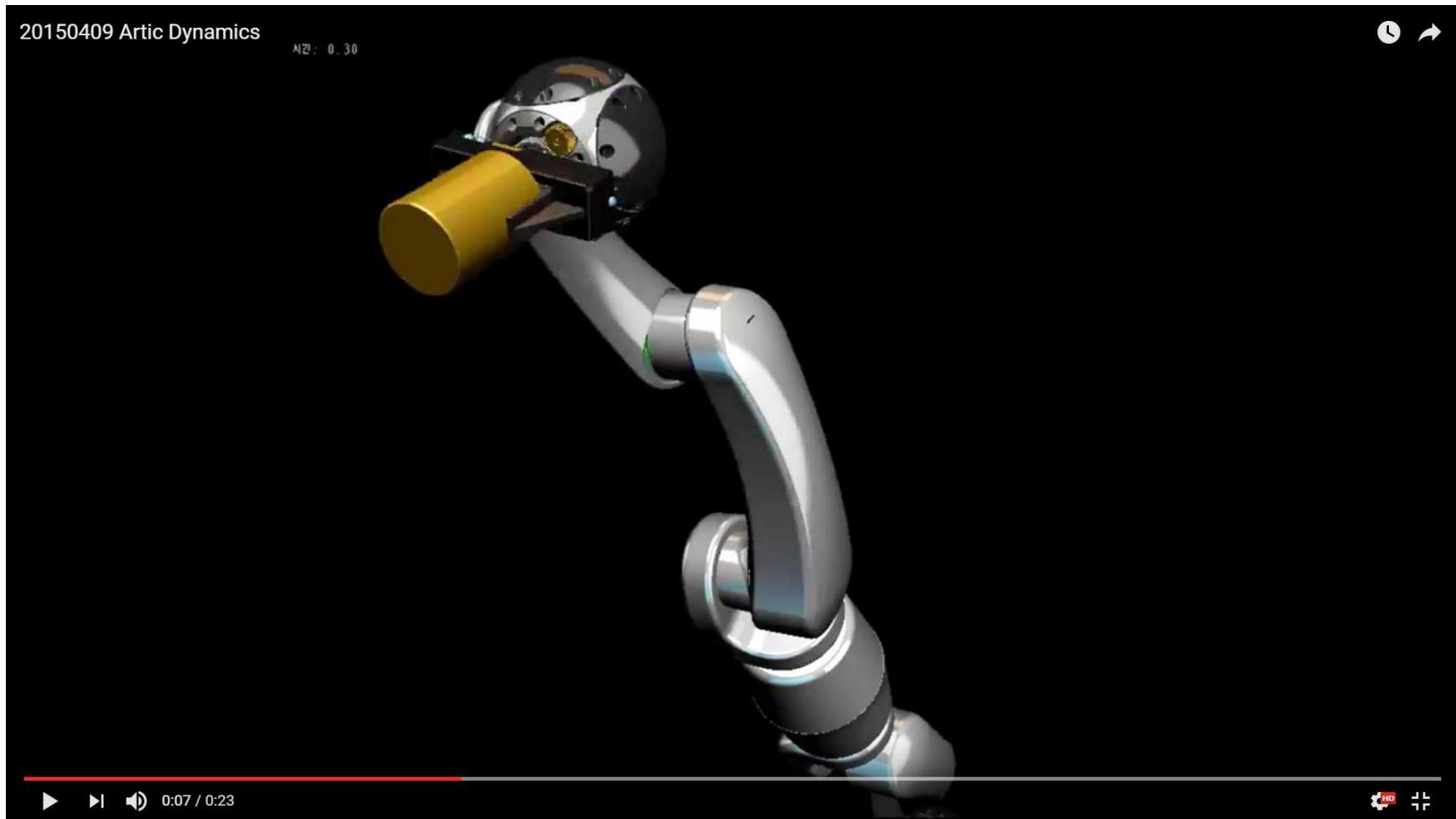
- ARO3 (2010)



- ELISA (2013~2014) 



- ARTIC Dynamics 



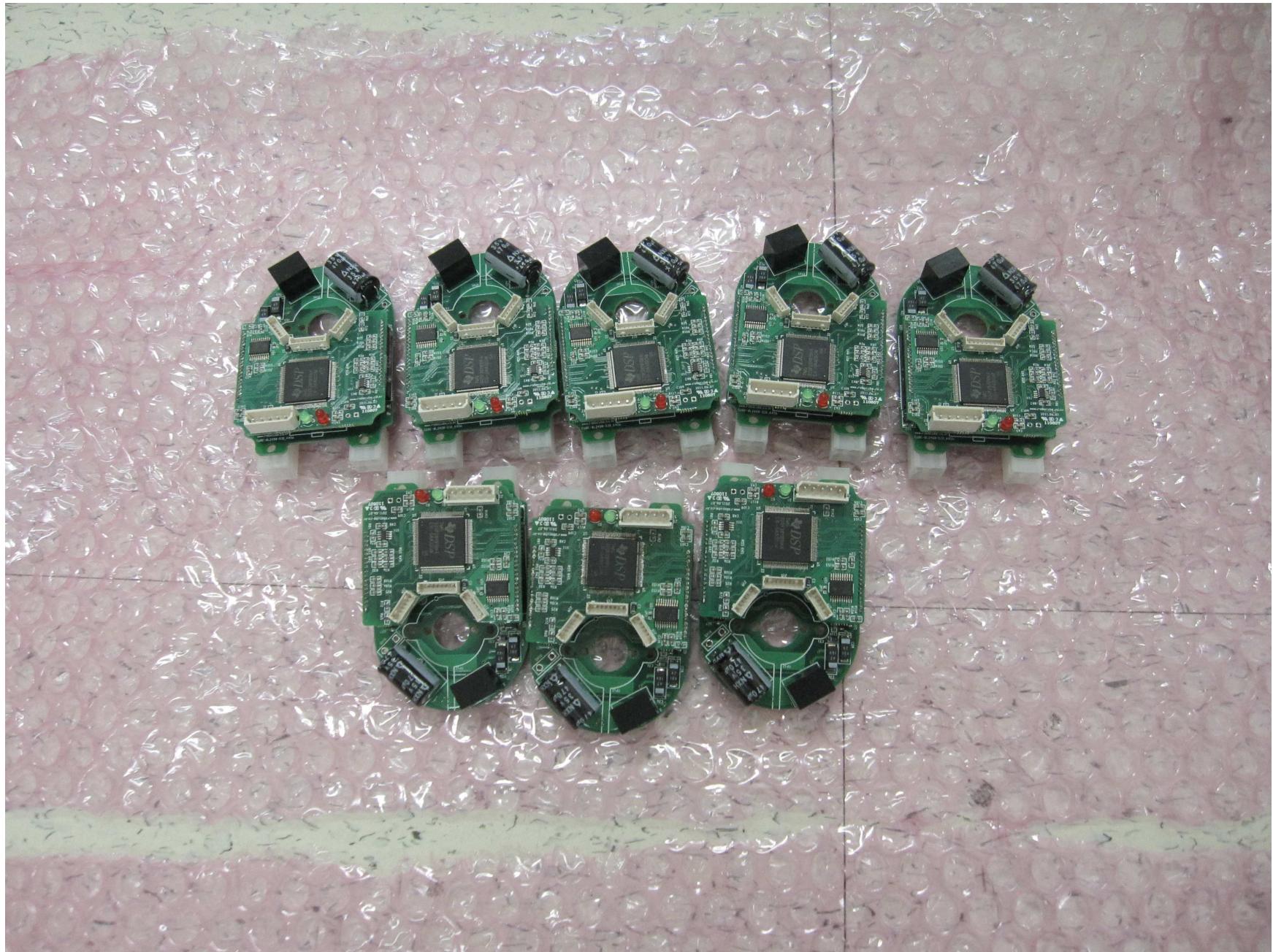
- FST for EOD Prototype



- K201 Prototype



- K201 Motion controller



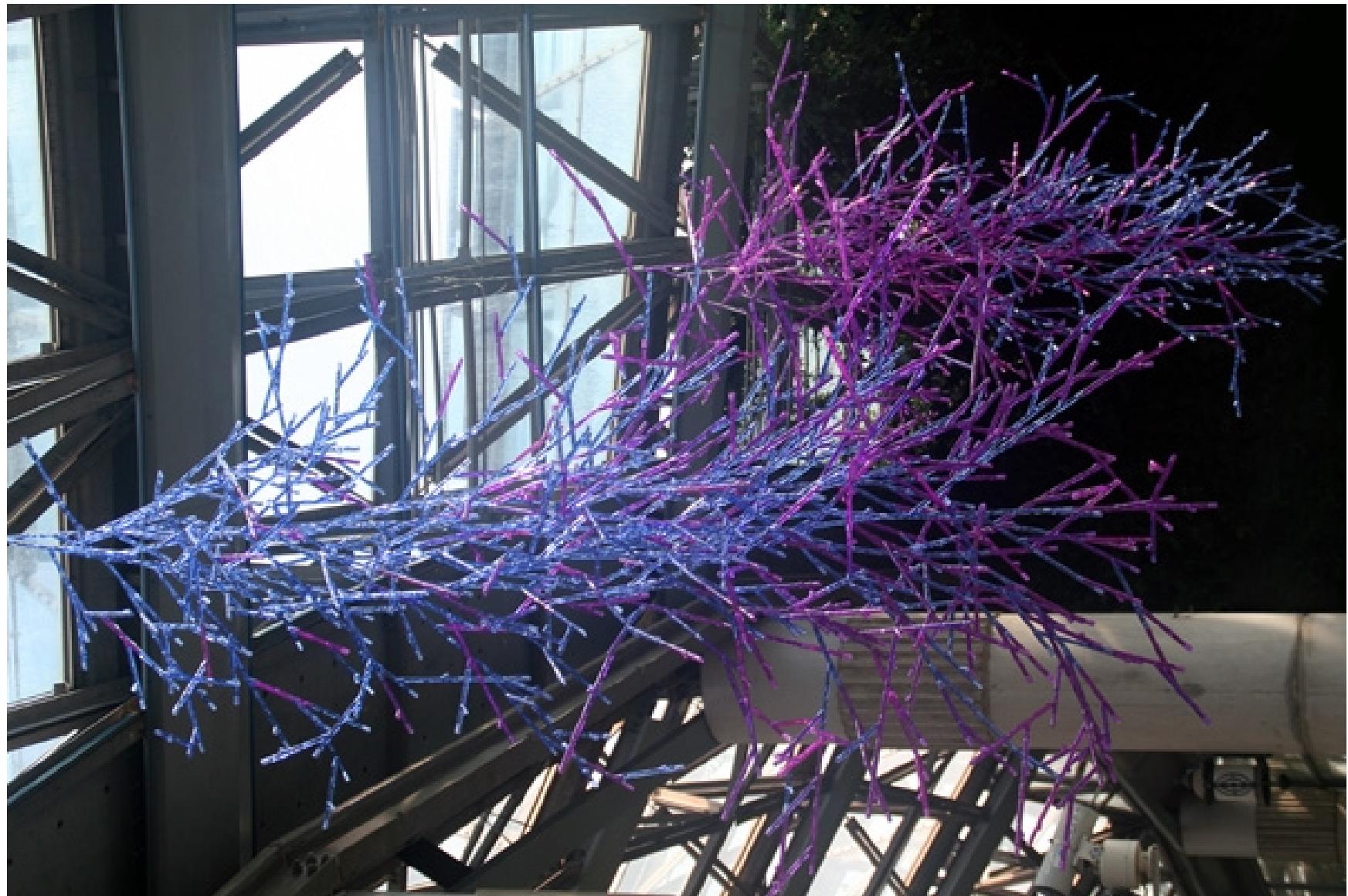
- K201



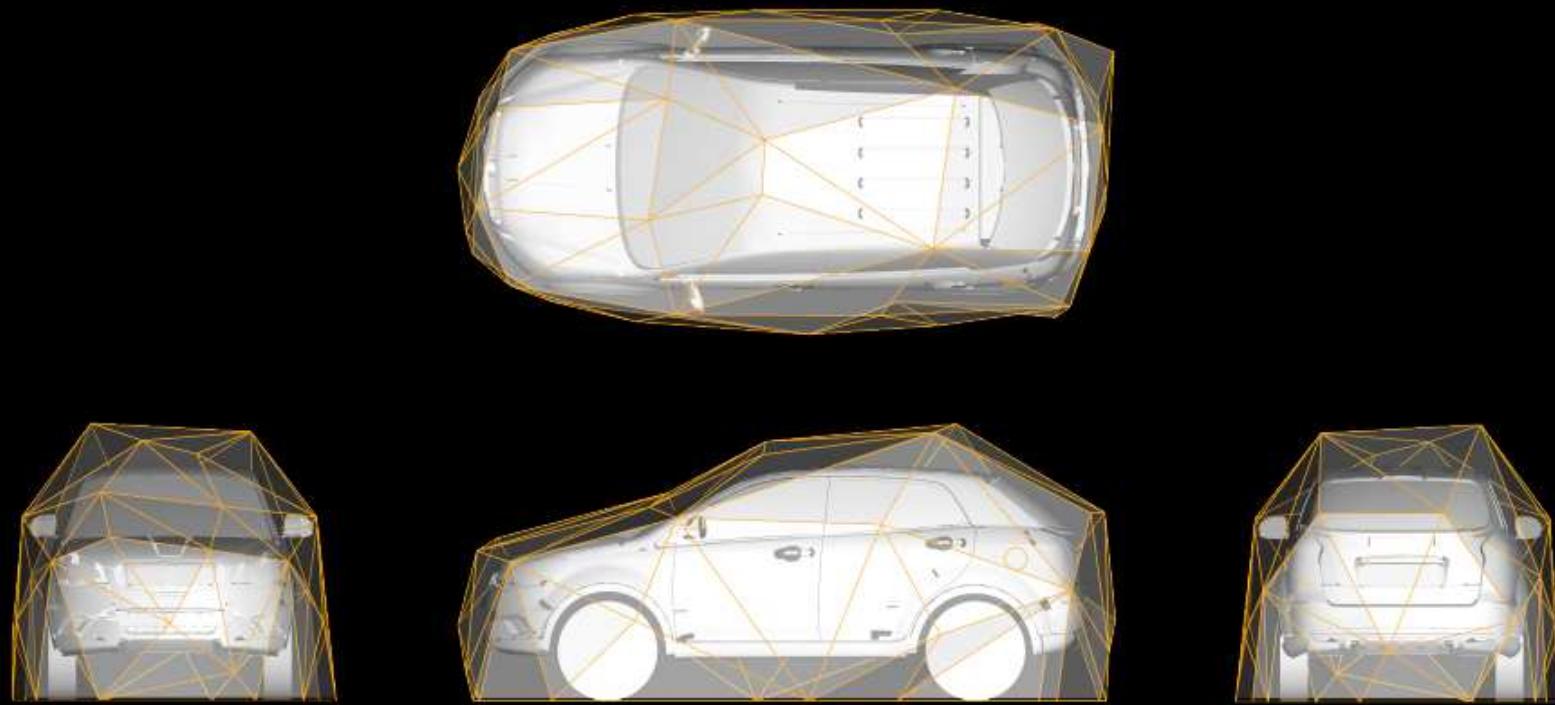
Kinetic Art

2011~2012

- 이장섭 작가, SIM, 제주 여미지 식물원, 2009~2011



- C200 : 쌍용자동차 신차 디스플레이 계획



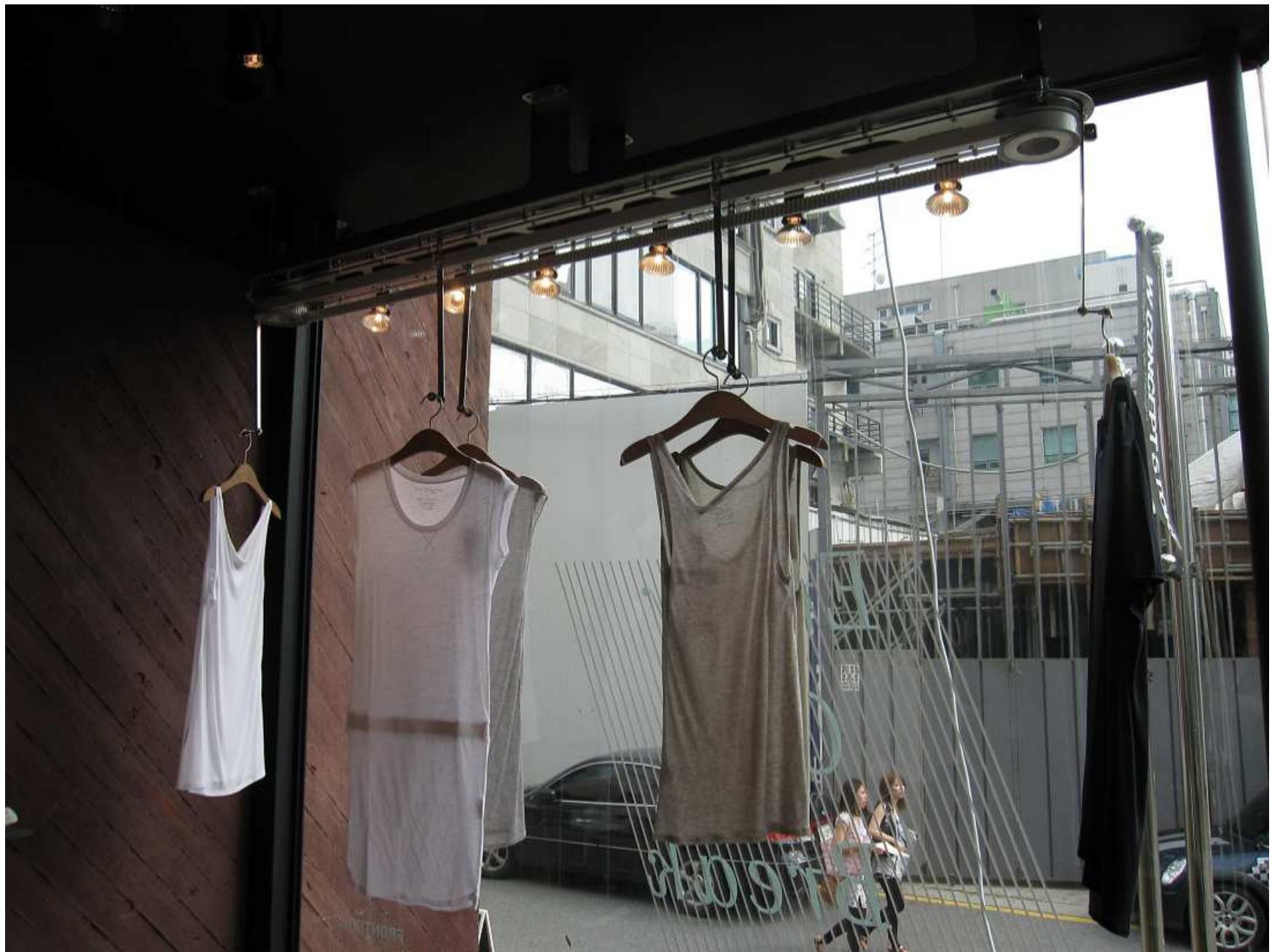
- 신사동 W Concept 디스플레이 



- 신사동 W Concept 디스플레이 



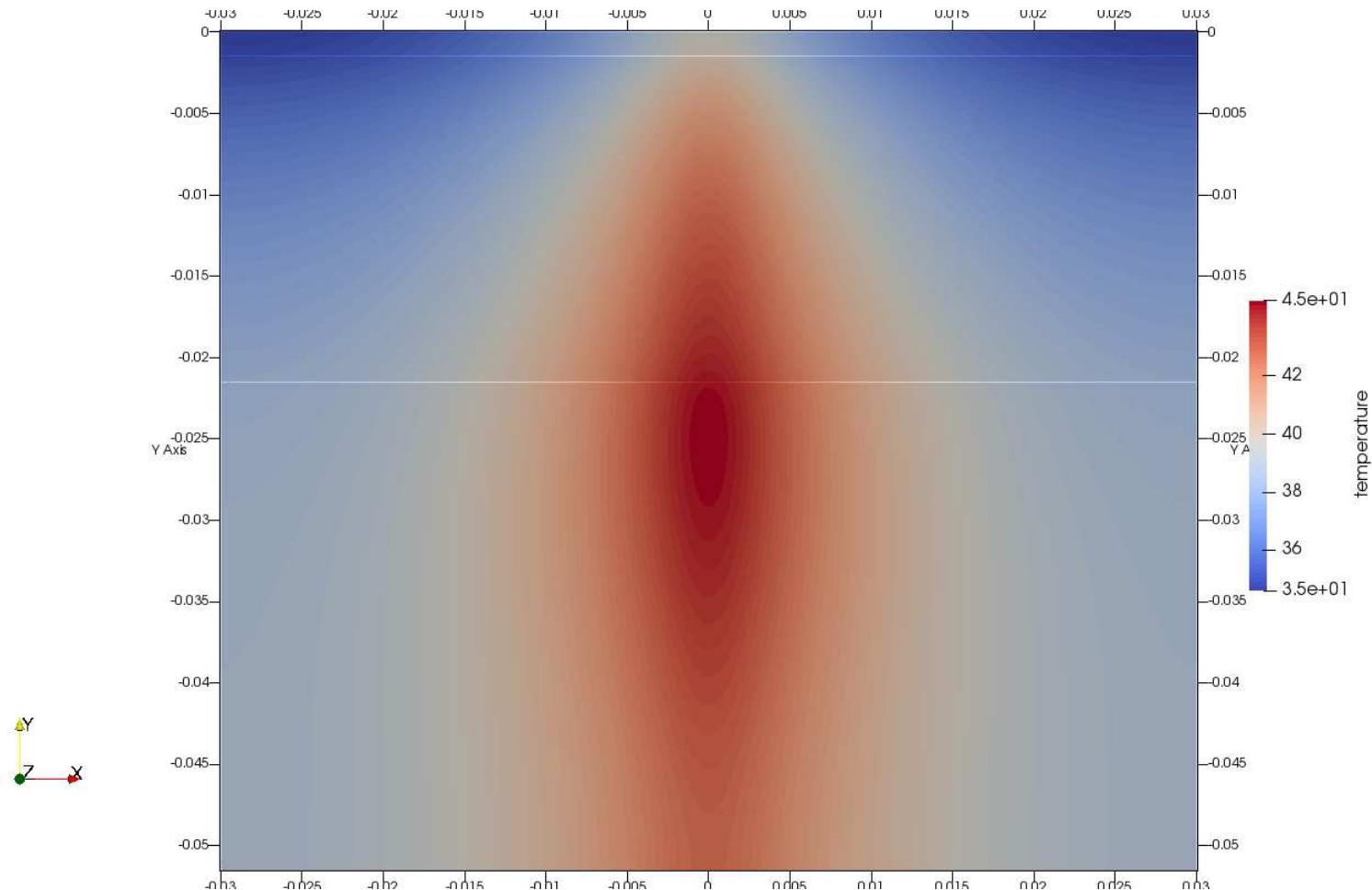
- 신사동 W Concept 디스플레이 



Numerical Design and Analysis

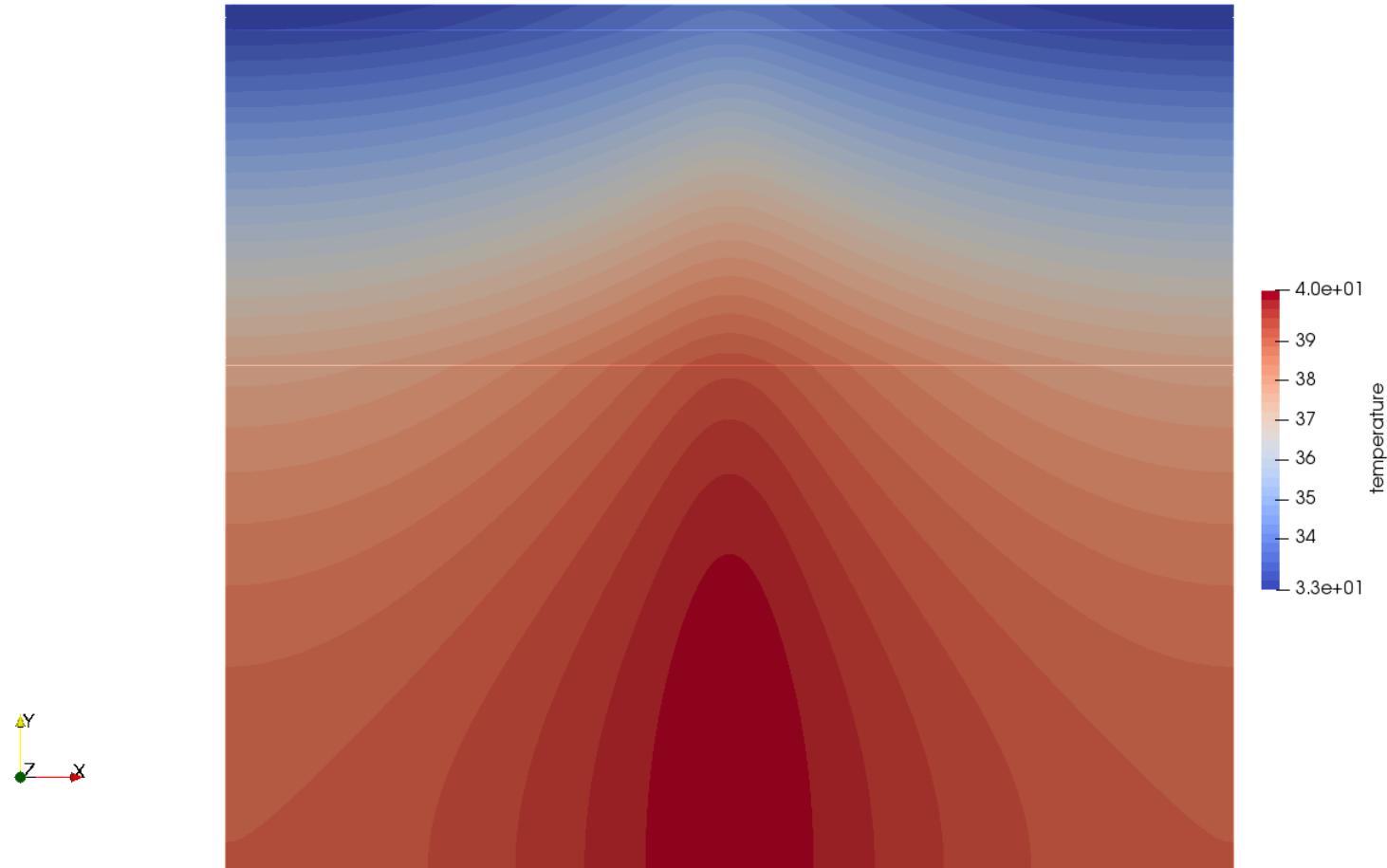
based on OpenSource Solutions

- Bioheat Transfer from IR LED light source 



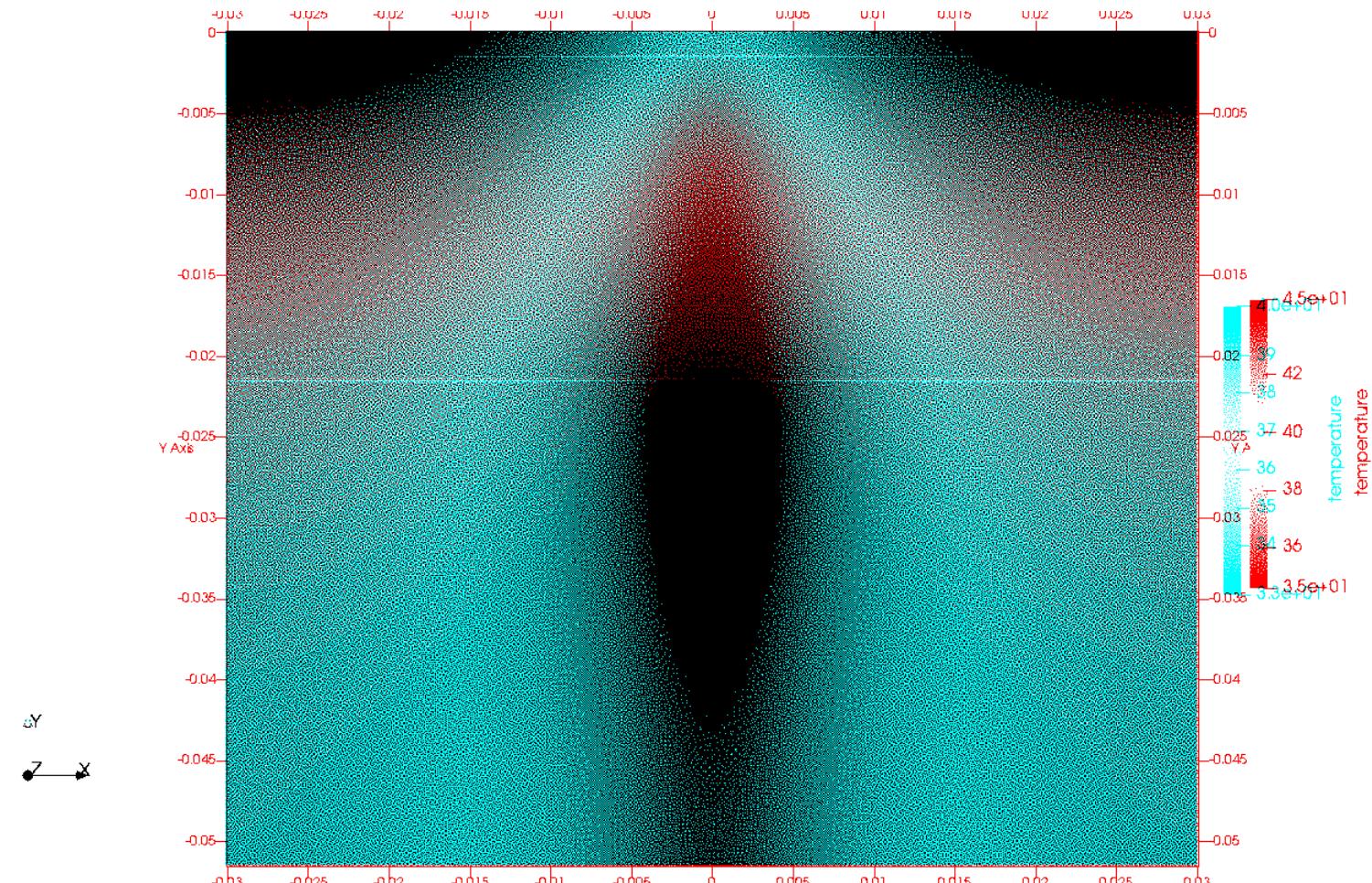
with Pennes' Bioheat Equation

- Bioheat Transfer from IR LED light source



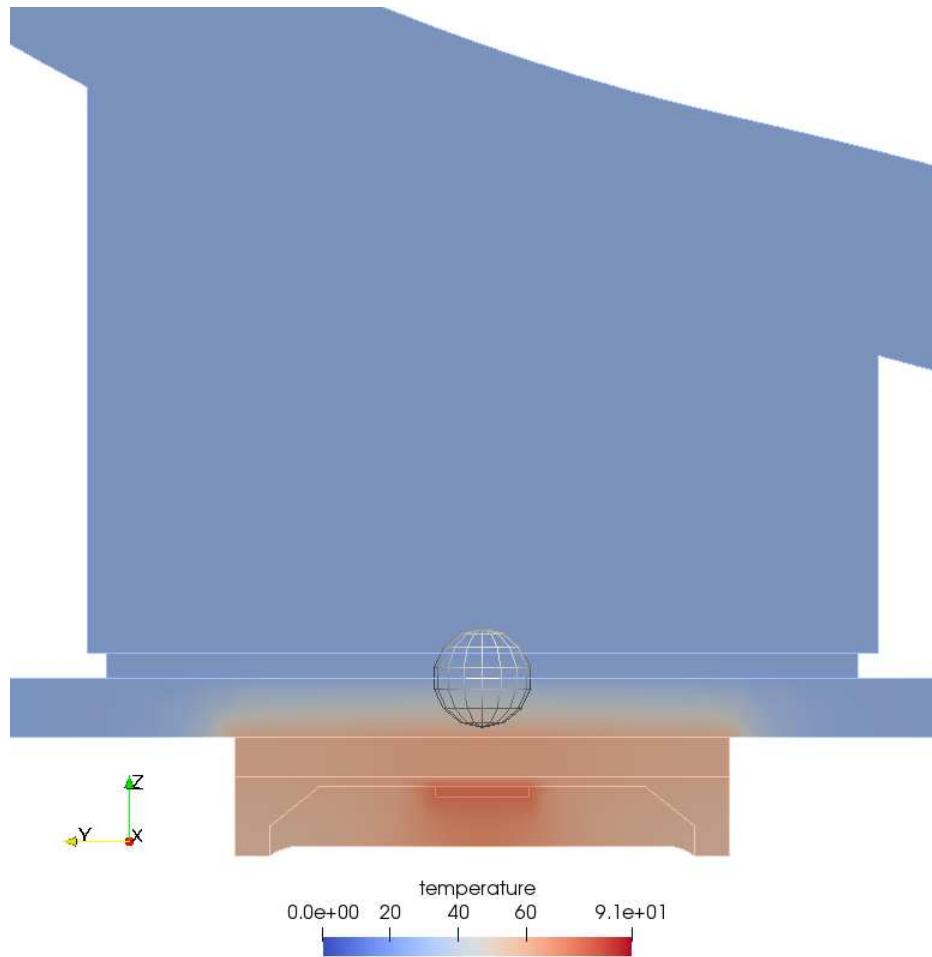
with Normal Heat Equation

- Bioheat Transfer from IR LED light source



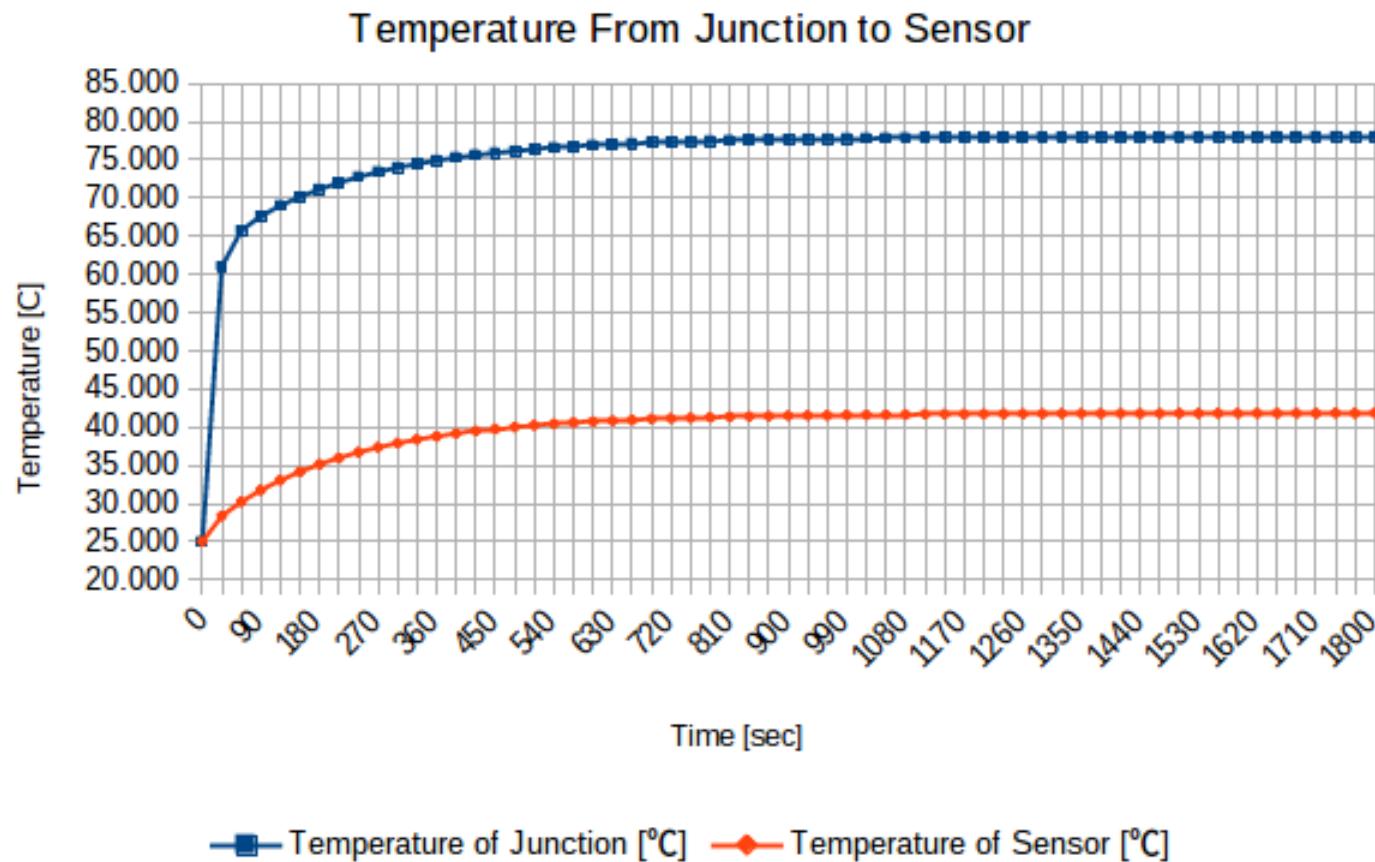
| Image Diff with Imagemagick

- LED Junction Temperature Analysis 



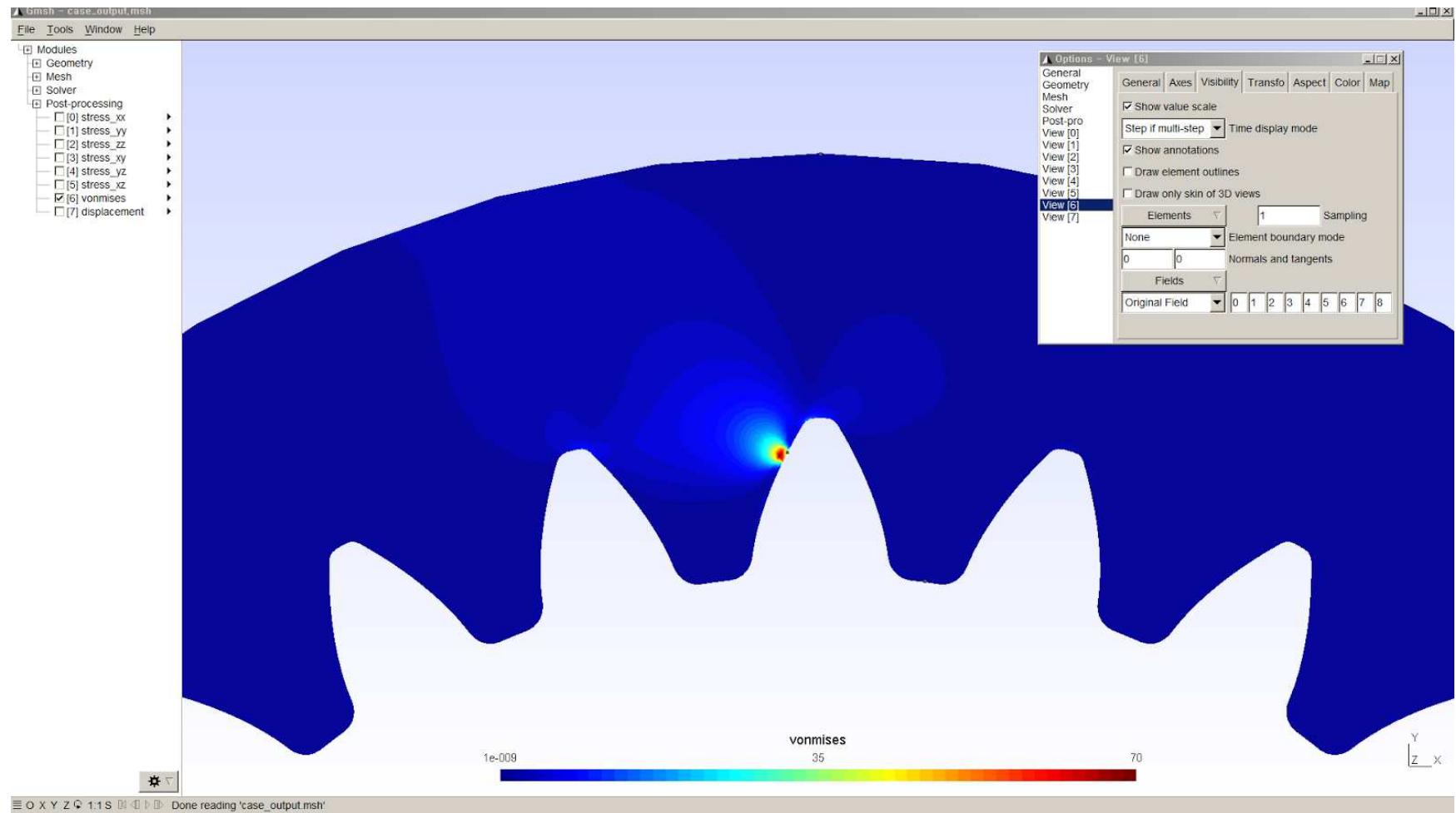
To know Real temperature sensor's value & LED's junction temperature by this CAE

- LED Junction Temperature Analysis

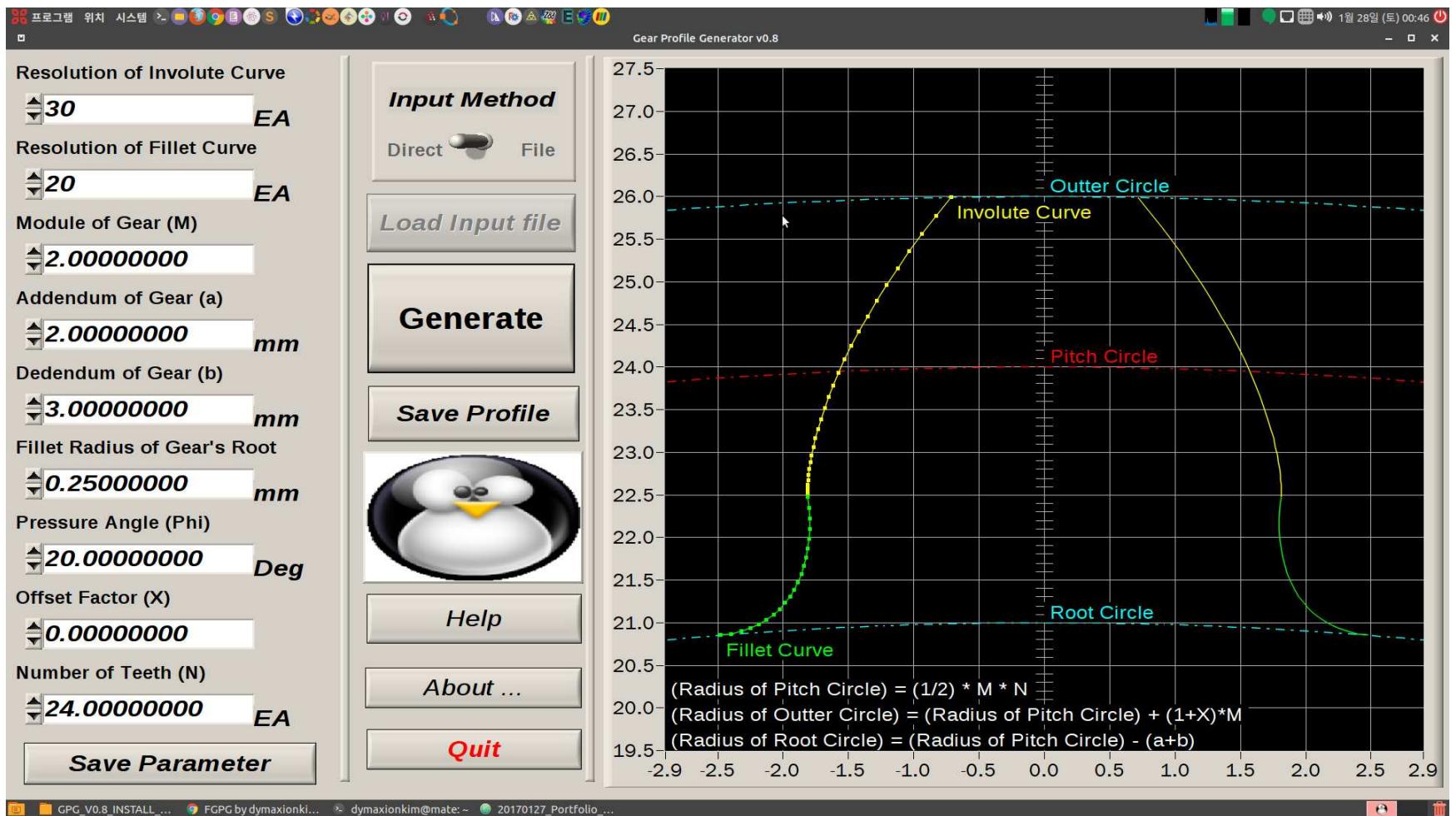


Result Data to apply the product's software

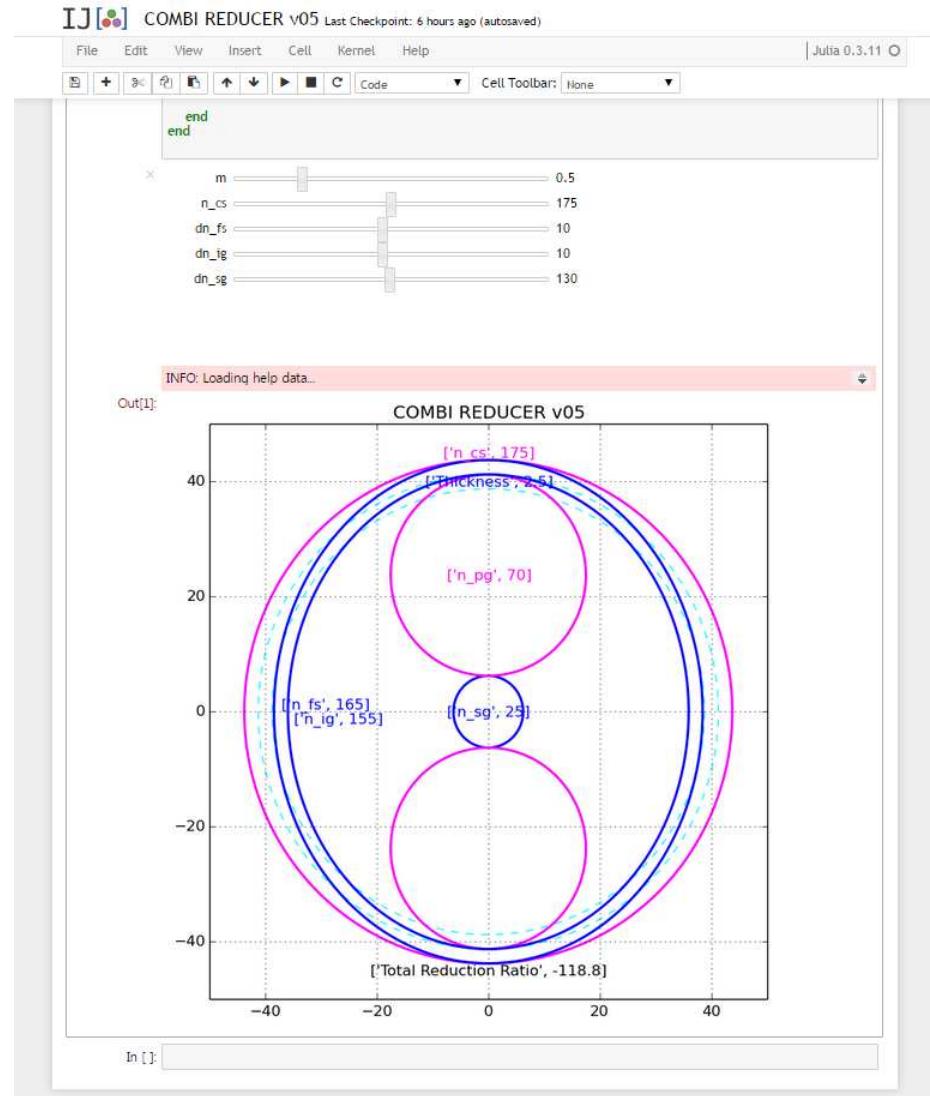
- Fine Gear Profile Generation and Analysis (Julia Lang)



• Gear Profile Generator (C Lang)



- COMBI : Harmonic Drive Designer (Julia Lang)

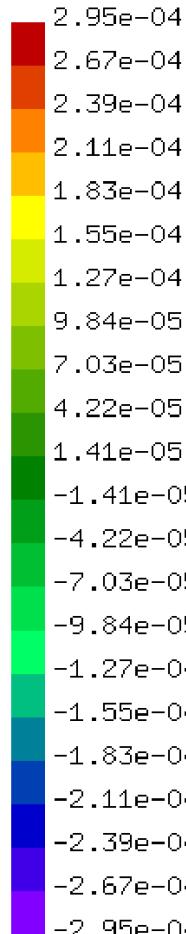


- Submarine Simulator's Frame FEA (CalculiX)

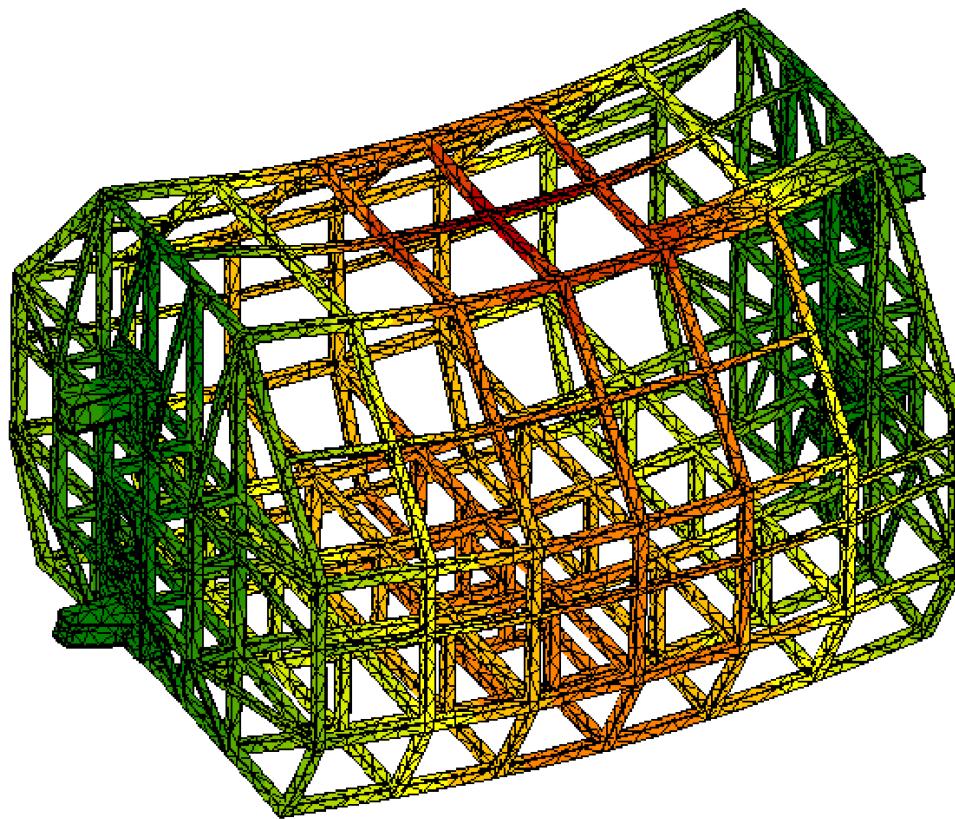
DoDAM Result

1/1:DISP
Time:1.000000
Entity:ALL

max: 2.95e-04
min: 0.00e+00

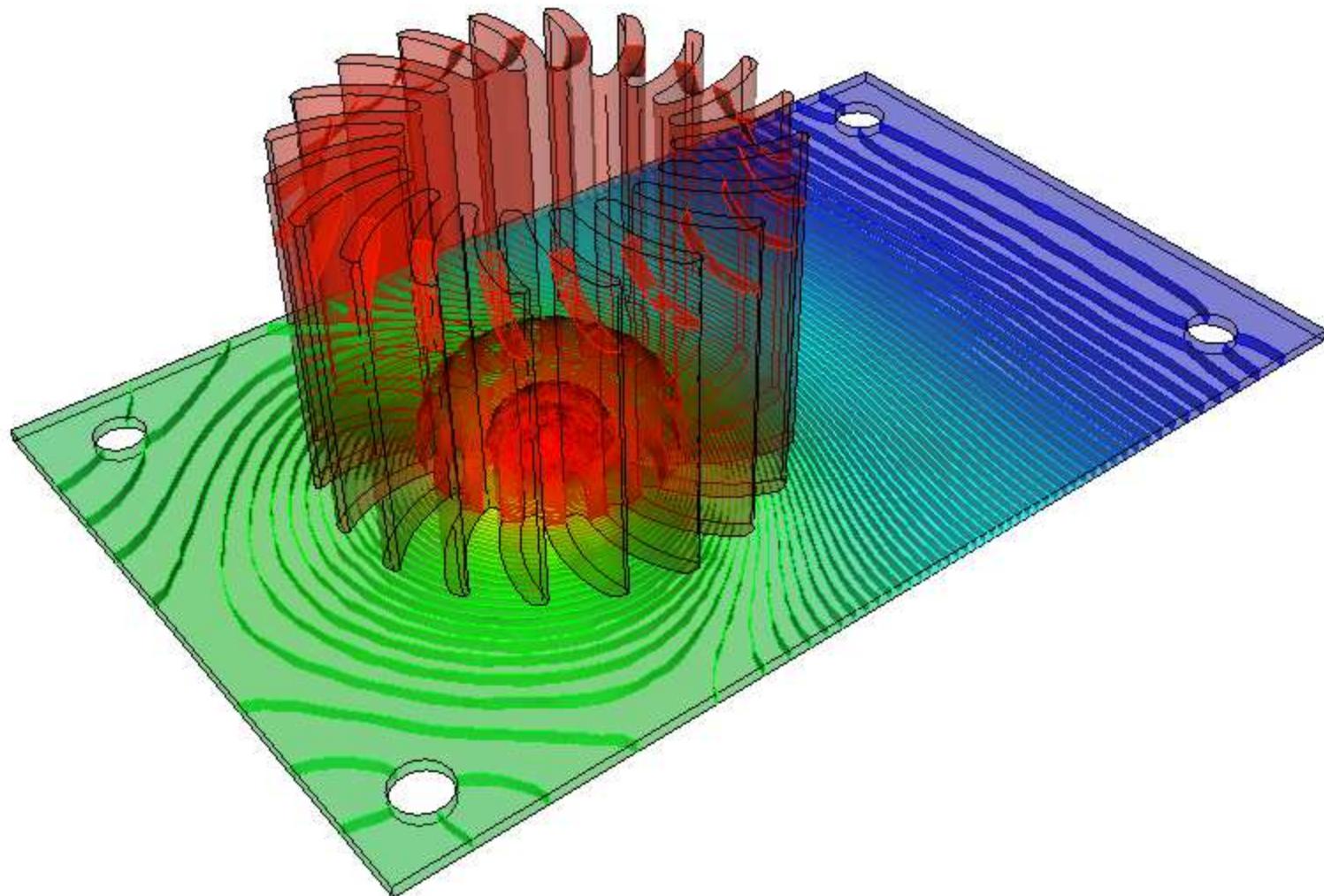


93%Amplitude

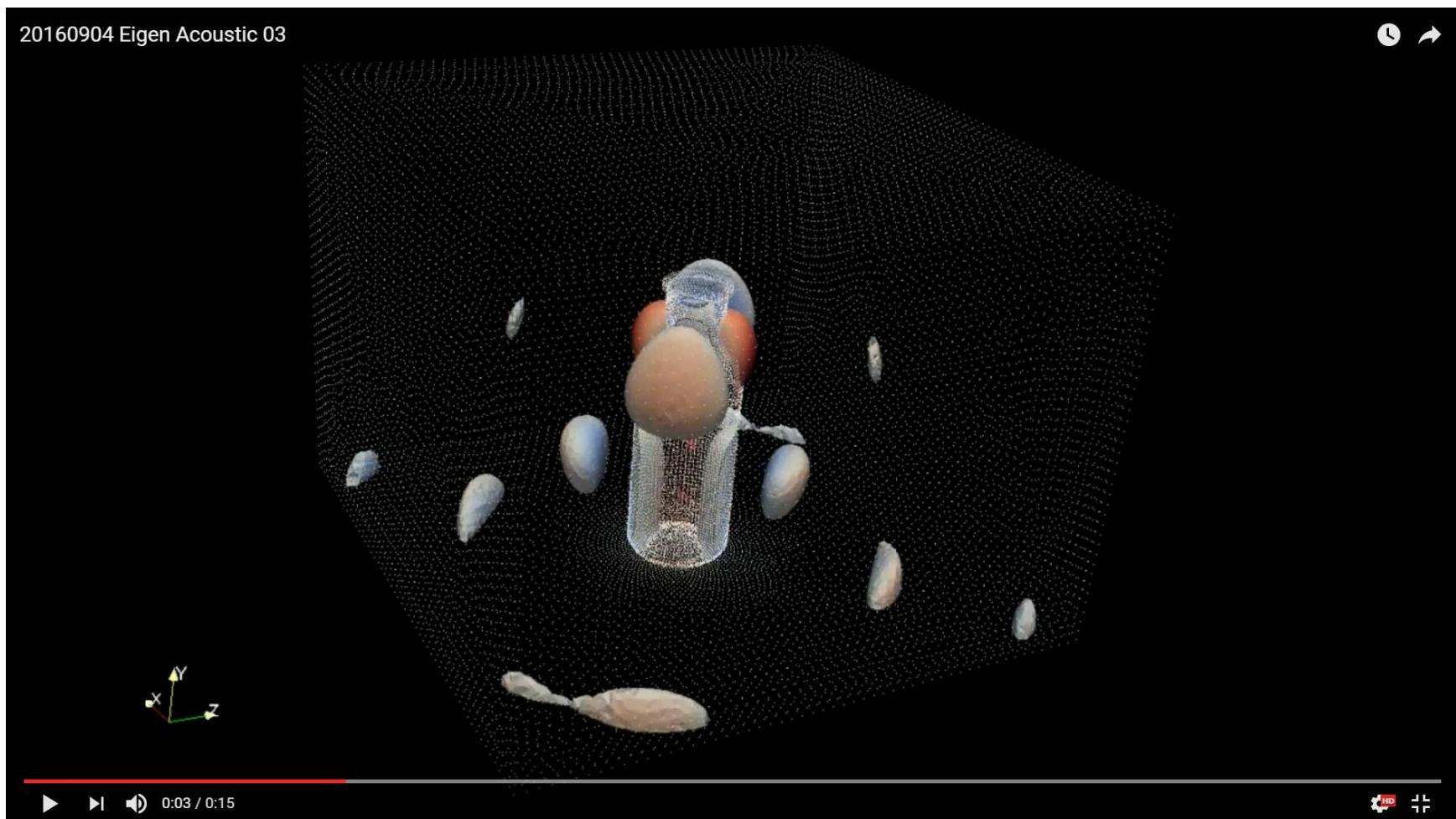


/home/dong/Documents/Analysis/20160727_P141_CalculiX_Static_Scaling/_main.frd

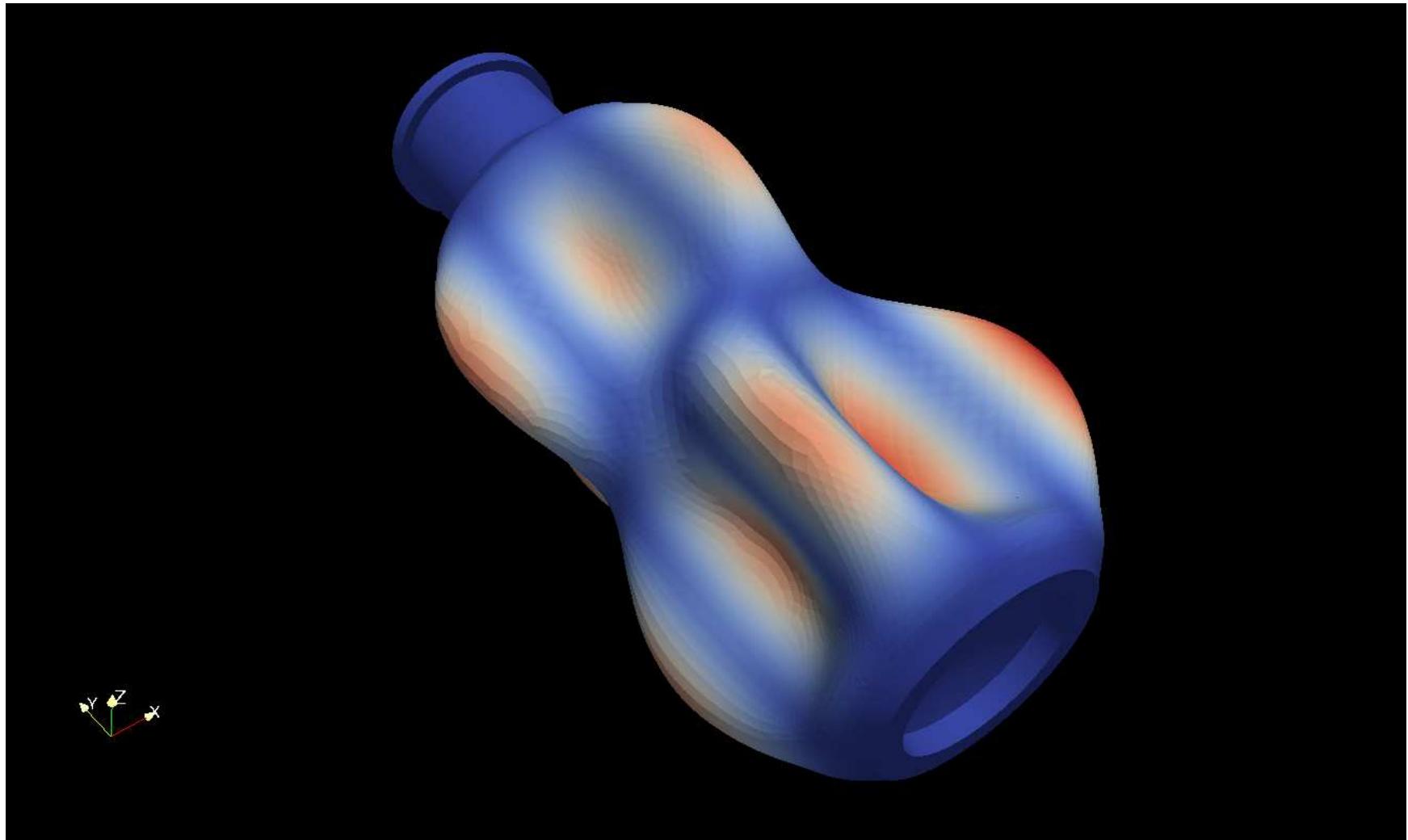
- Transient Heat Transfer (Elmer) 



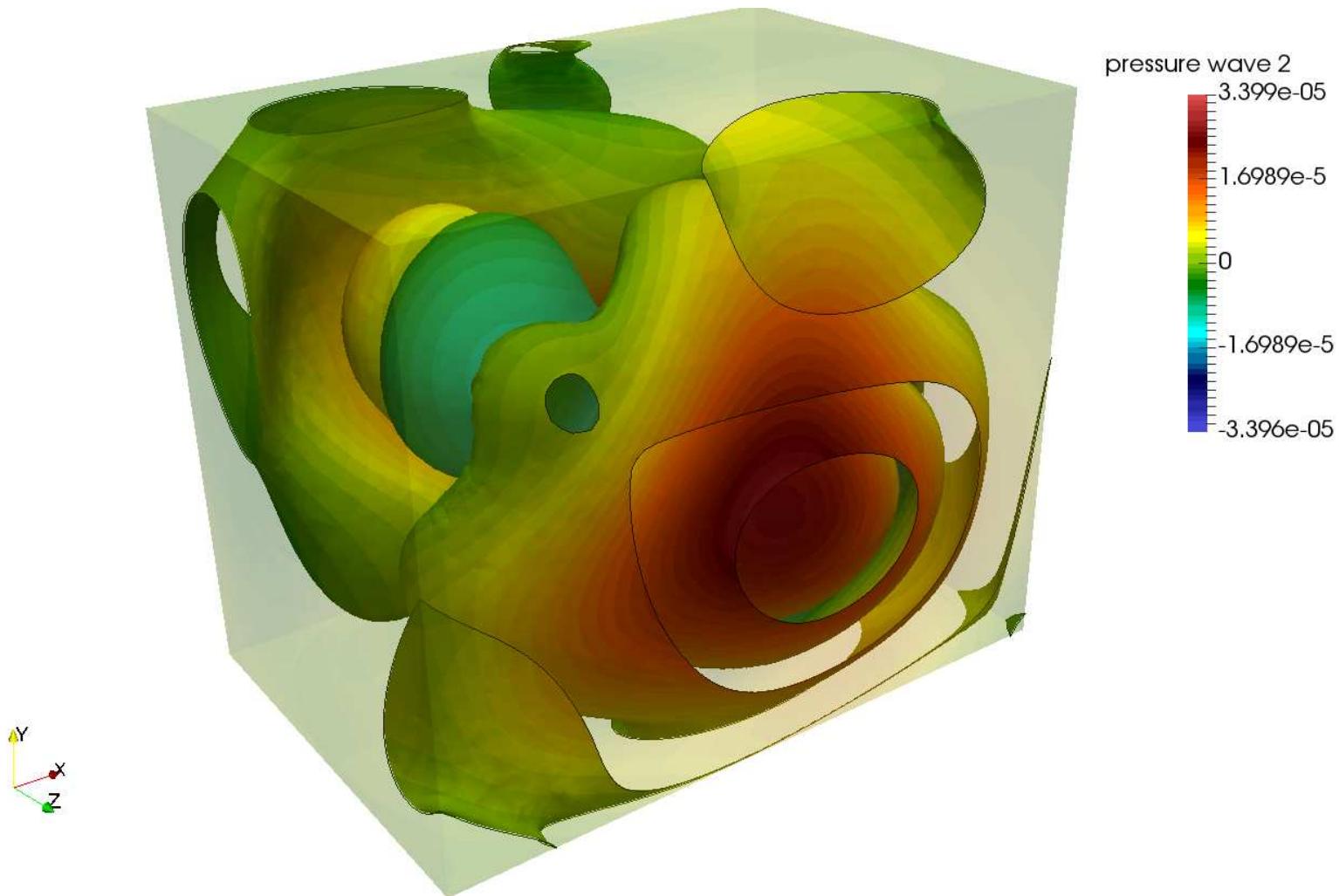
- Eigenvalue Acoustic (Elmer) 



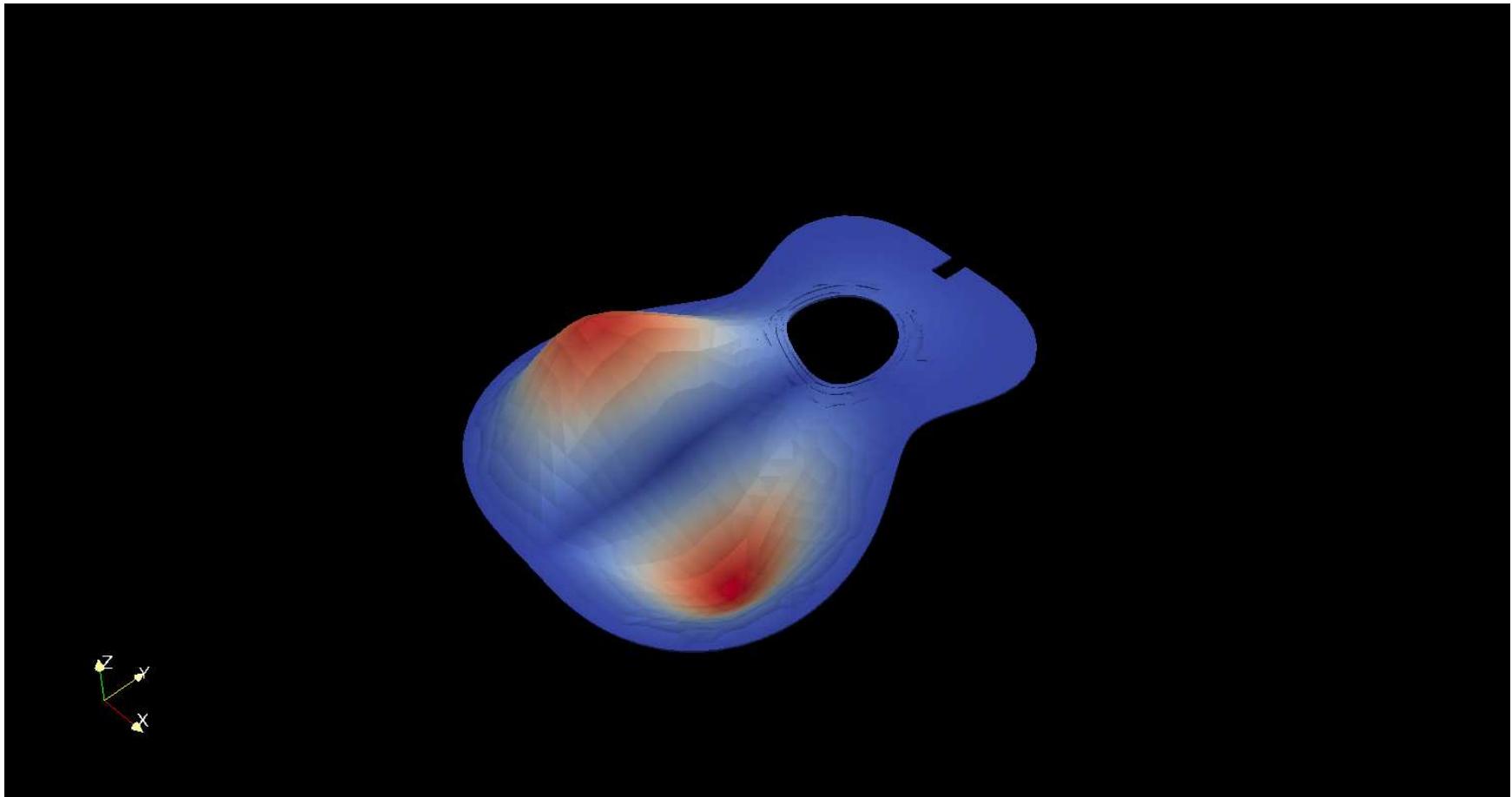
- Linear Buckling (Elmer) 



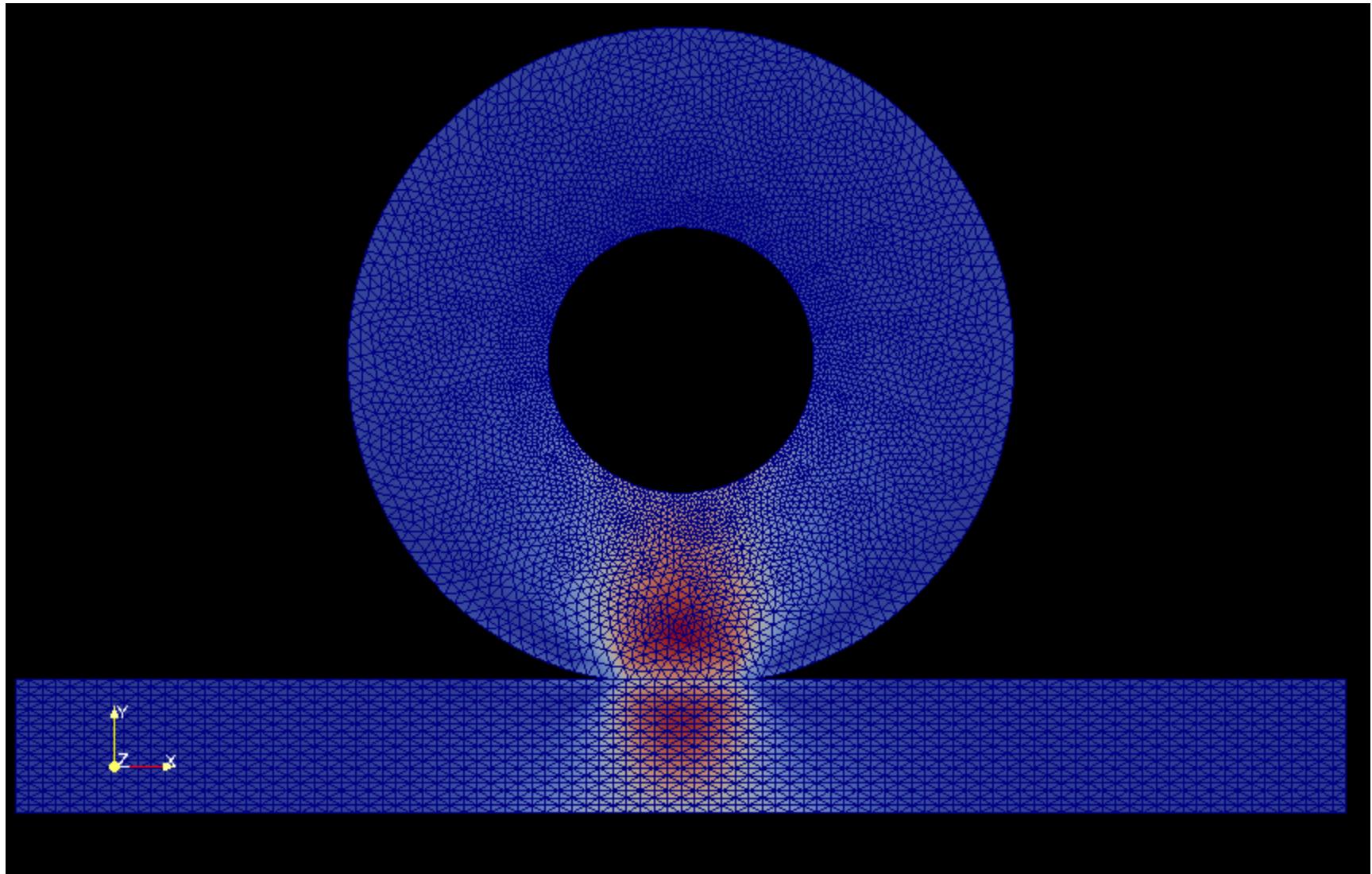
- Harmonic Acoustics (Elmer) 



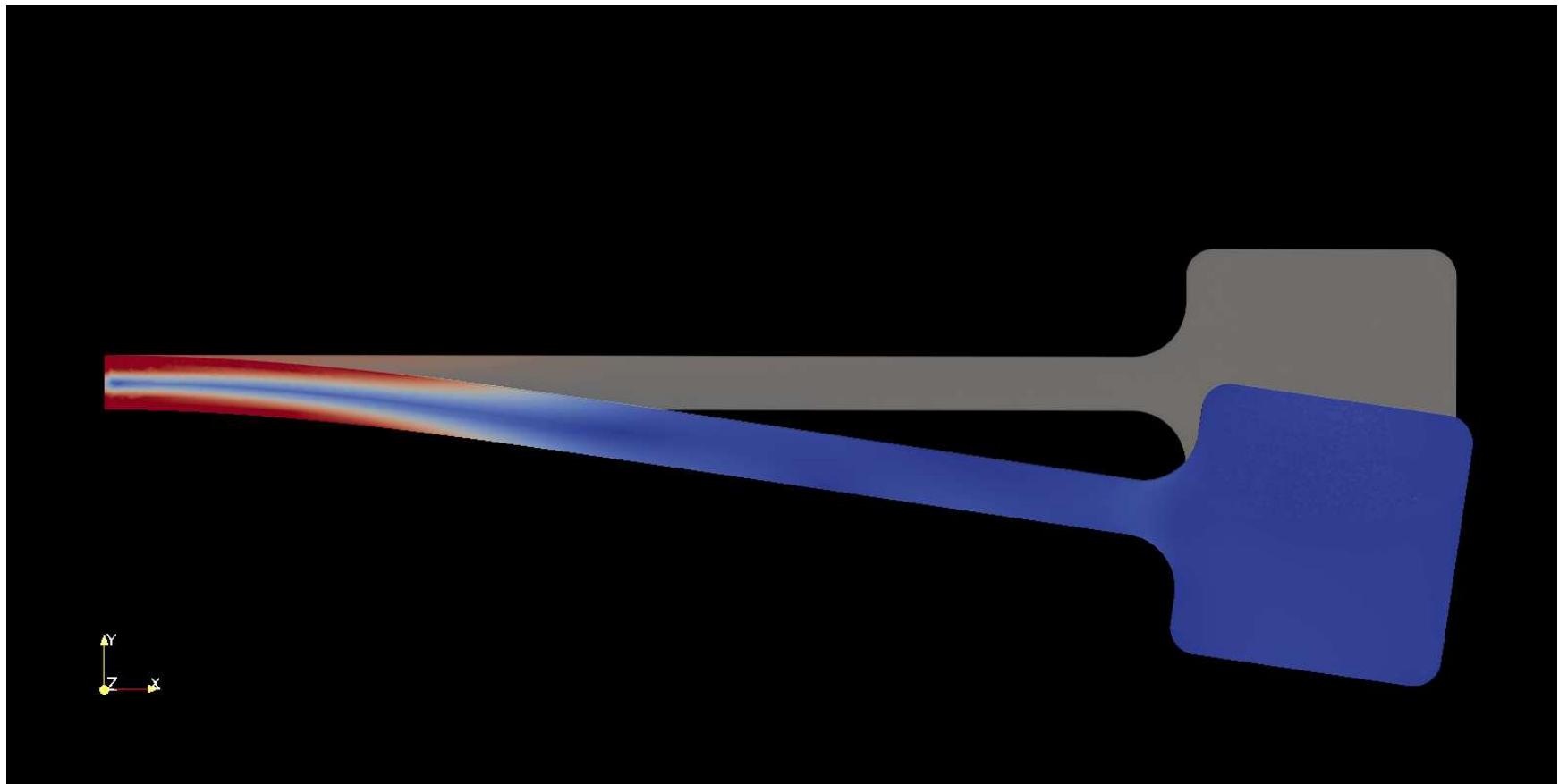
- Eigenmodes (Elmer) 



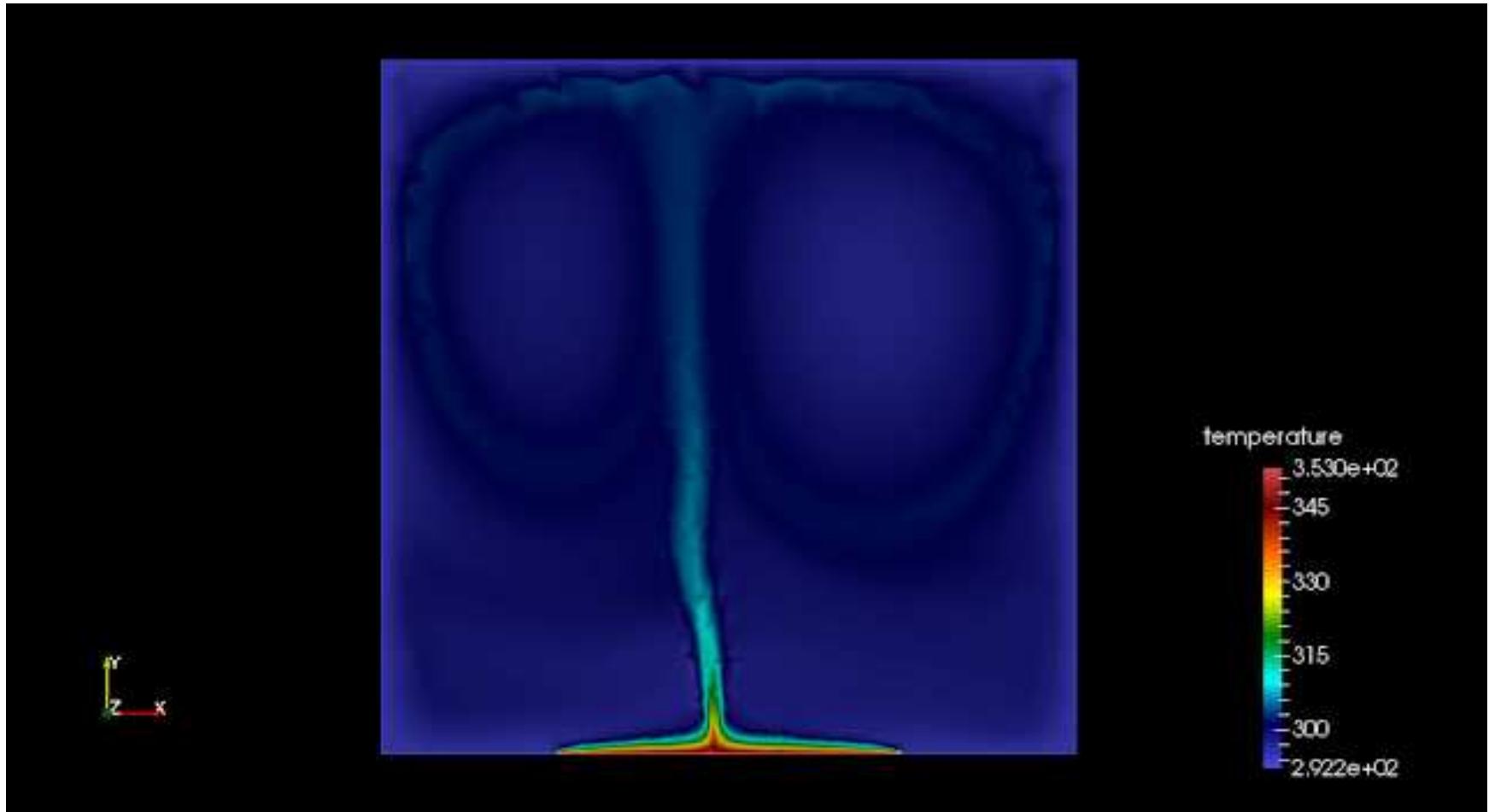
- Contact (Elmer) 



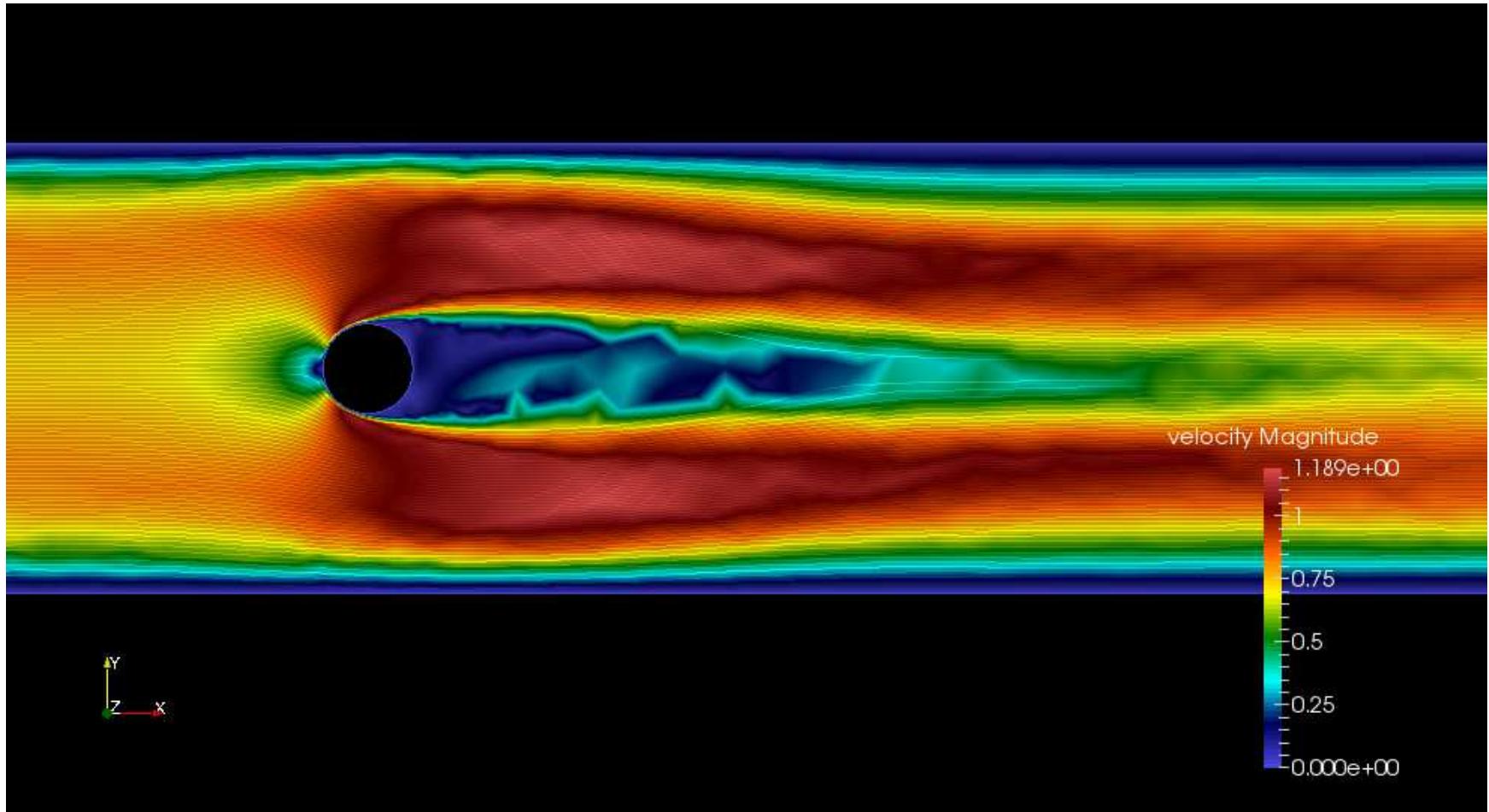
- Transient Dynamic Elasticity (Elmer) 



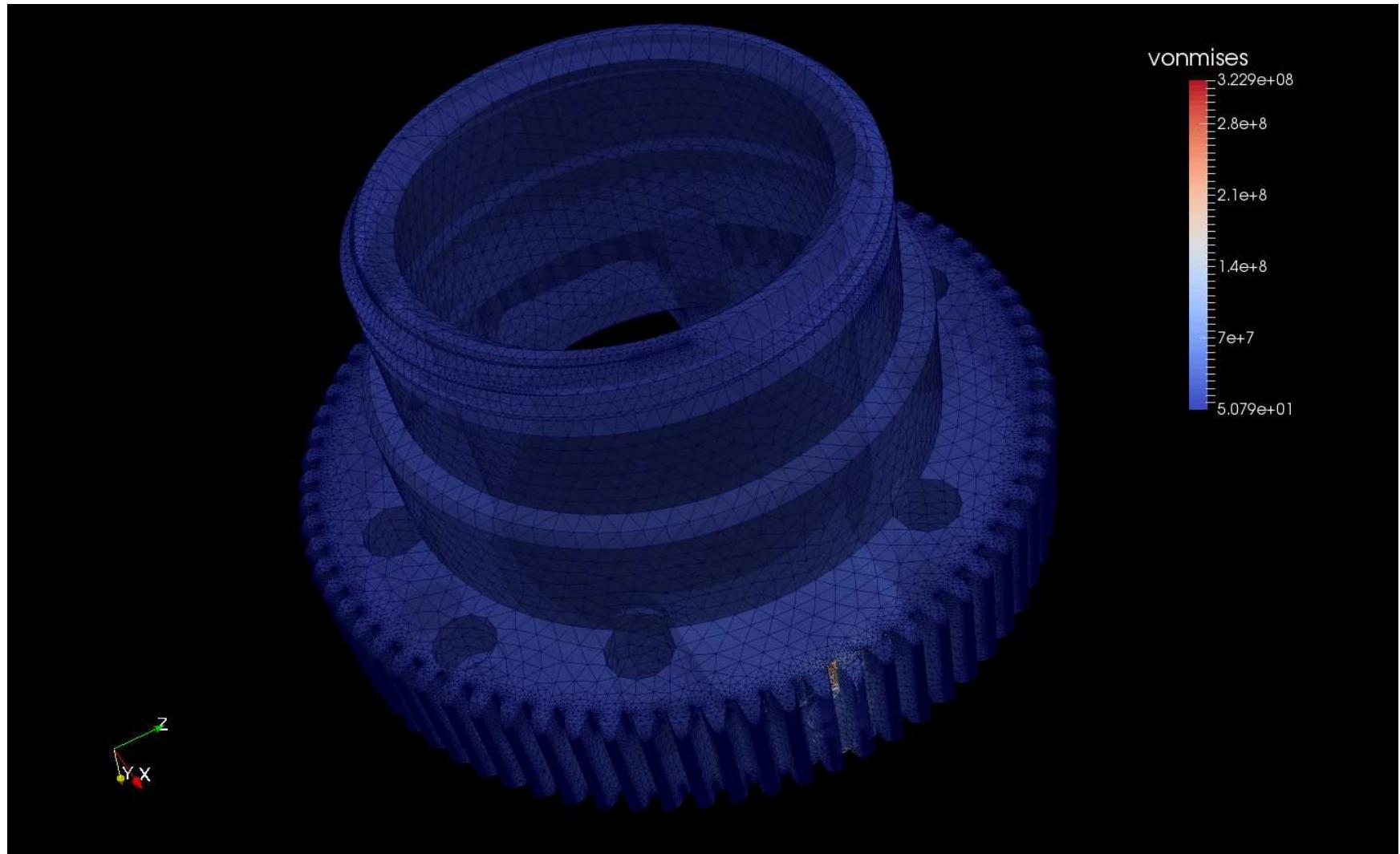
- Natural Convection (Elmer) 



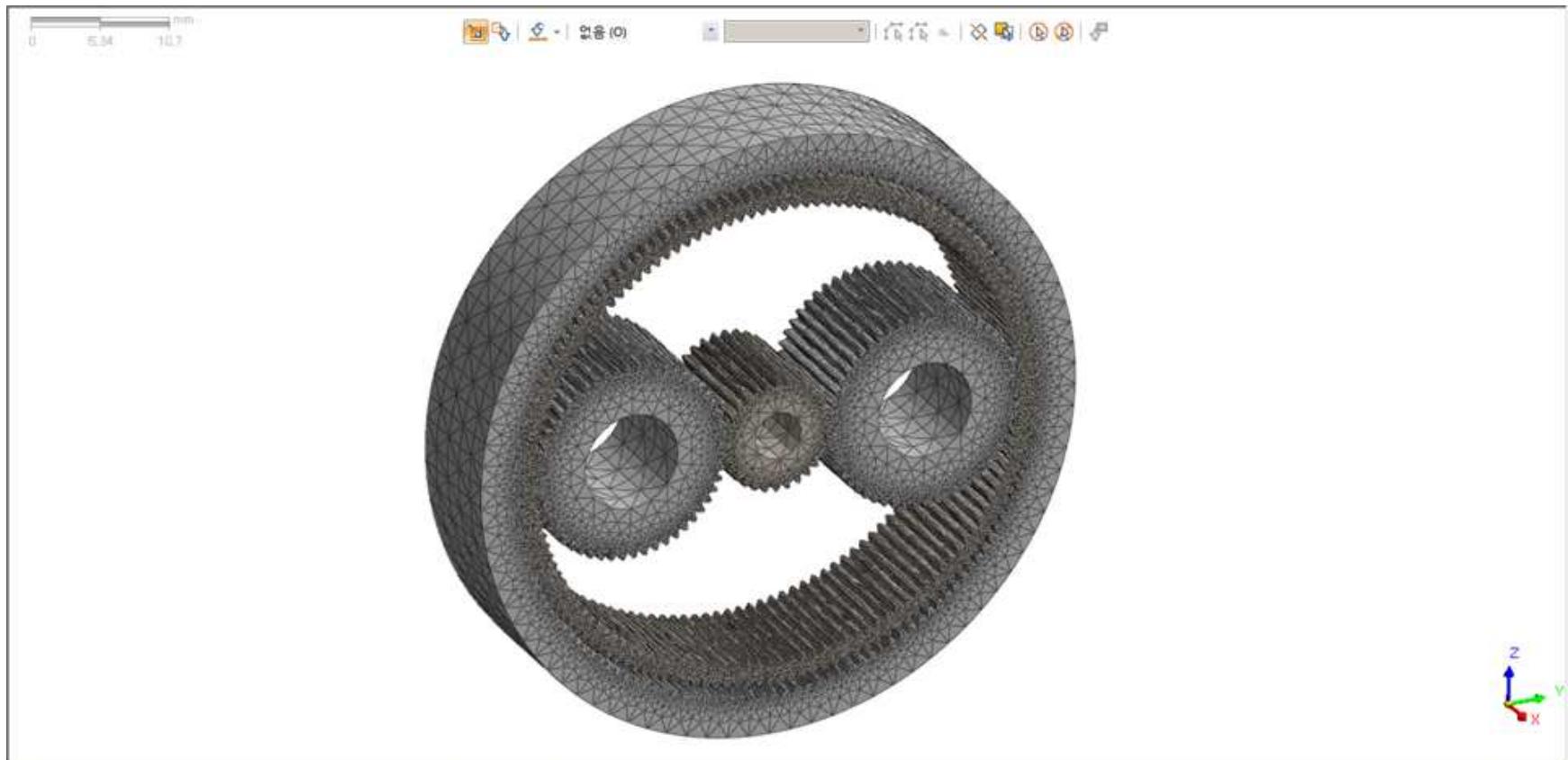
- Karman Vortex (Elmer) 



- Gear Stress (Elmer) 



- Harmonic Drive Gear Stress (MidasNFX) 



PDM / PLM / vCS / Automation

based on OpenSource Solutions

• ProtoPLM (PLM)

The screenshot shows the ProtoPLM - Bill of Materials interface. At the top, there are several tabs: osboxes@bang:~/git/..., reveal.js, Google 캘린더 - 2018년 ..., Essay.md - ~/git/My..., README.md (~/git/My...), and ProtoPLM - Bill of Mater... The current tab is ProtoPLM - Bill of Materials. The address bar shows the URL: 192.168.2.11/repo/7674/bom?bom_type=indented&output=html&item_id=58ff284c8072924ff32feee3&col_0=on&col_5=on&col_1=on&col_6=on&col_2=on&col_7=on&col_8=on&col_13=on. The date 20180518 금 15:27 is displayed in the top right corner.

The main content area is titled "Detailed Bill of Materials". It includes a legend for column selection:

<input checked="" type="checkbox"/> line_number	<input checked="" type="checkbox"/> description	<input type="checkbox"/> DESIGNER
<input checked="" type="checkbox"/> qty	<input checked="" type="checkbox"/> TYPE	<input type="checkbox"/> CHECKER
<input checked="" type="checkbox"/> item_number	<input checked="" type="checkbox"/> DESCRIPTION	<input type="checkbox"/> DIVISION
<input type="checkbox"/> revision	<input checked="" type="checkbox"/> MATERIAL	<input checked="" type="checkbox"/> SUPPLIER
<input type="checkbox"/> phase	<input checked="" type="checkbox"/> TREATMENT	<input type="checkbox"/> UNIT_PRICE

Below the legend, there is a text input for "Expand hierarchical BOM through [99] levels, top-level quantity [1]".

A "Generate BOM" button is present, followed by "for H1000001 revA unreleased A_LPL2_KOREA".

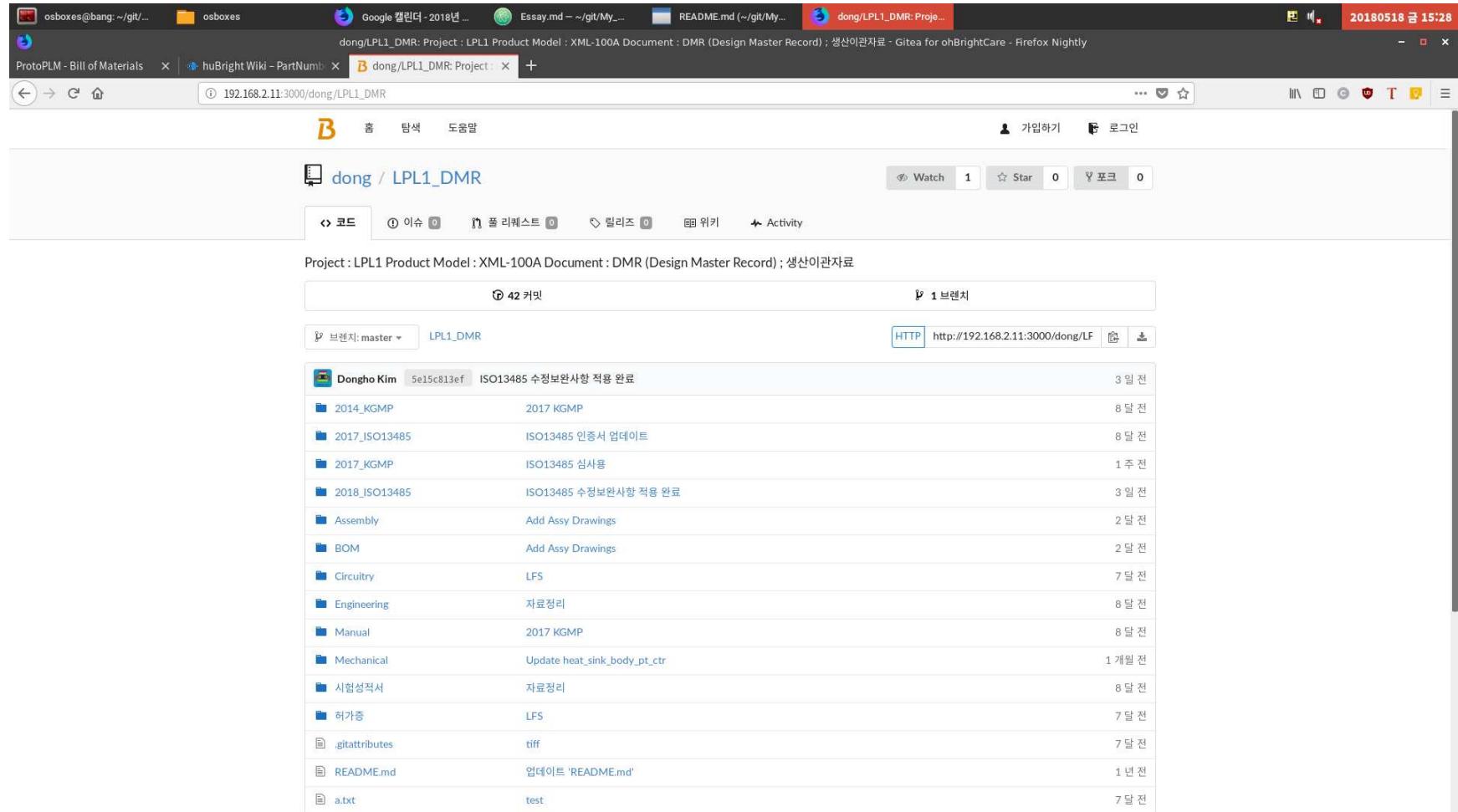
Text below the button indicates available formats: [csv] [tab-delimited] [xls].

The main table displays the following data:

line	qty	item_number	description	TYPE	DESCRIPTION	MATERIAL	TREATMENT	SUPPLIER
1	1	H1000001	A_LPL2_KOREA					
2	1	H2000001	A_LPL2					
3	1	H2000002	A_LPL2_BASE					
4	1	H2000151	A_LPL2_BASE_LEG					
5	1	H3000001	M_LPL2_BASE_LEG	PART	Aluminium Casting	ALDC12	Sanding, Powder Coating	화룡조명
6	2	H3000002	B_SUP0_1M-HP52-02-63-313	PART	Caster Wheel, No Brake	Urethane etc.	-	화룡조명
7	2	H3000003	B_SUP0_1M-HP52-02D-63-313	PART	Caster Wheel, Brake	Urethane etc.	-	화룡조명
8	1	H2000132	P_LPL2_CABLE_B	ASSEMBLY	-	-	-	하이디시큐리티
9	1	H3000035	E_IEC-INLET_SCREW	PART	IEC-60320 C14 Inlet, Screw Type	-	-	-
10	2	H4R03008	B_RDBOLT_M3X8L	PART	B_RDBOLT_M3X8L	Steel	-	-

Developed with Perl & MongoDB

• Gitea (VCS)



Developed with Go Lang

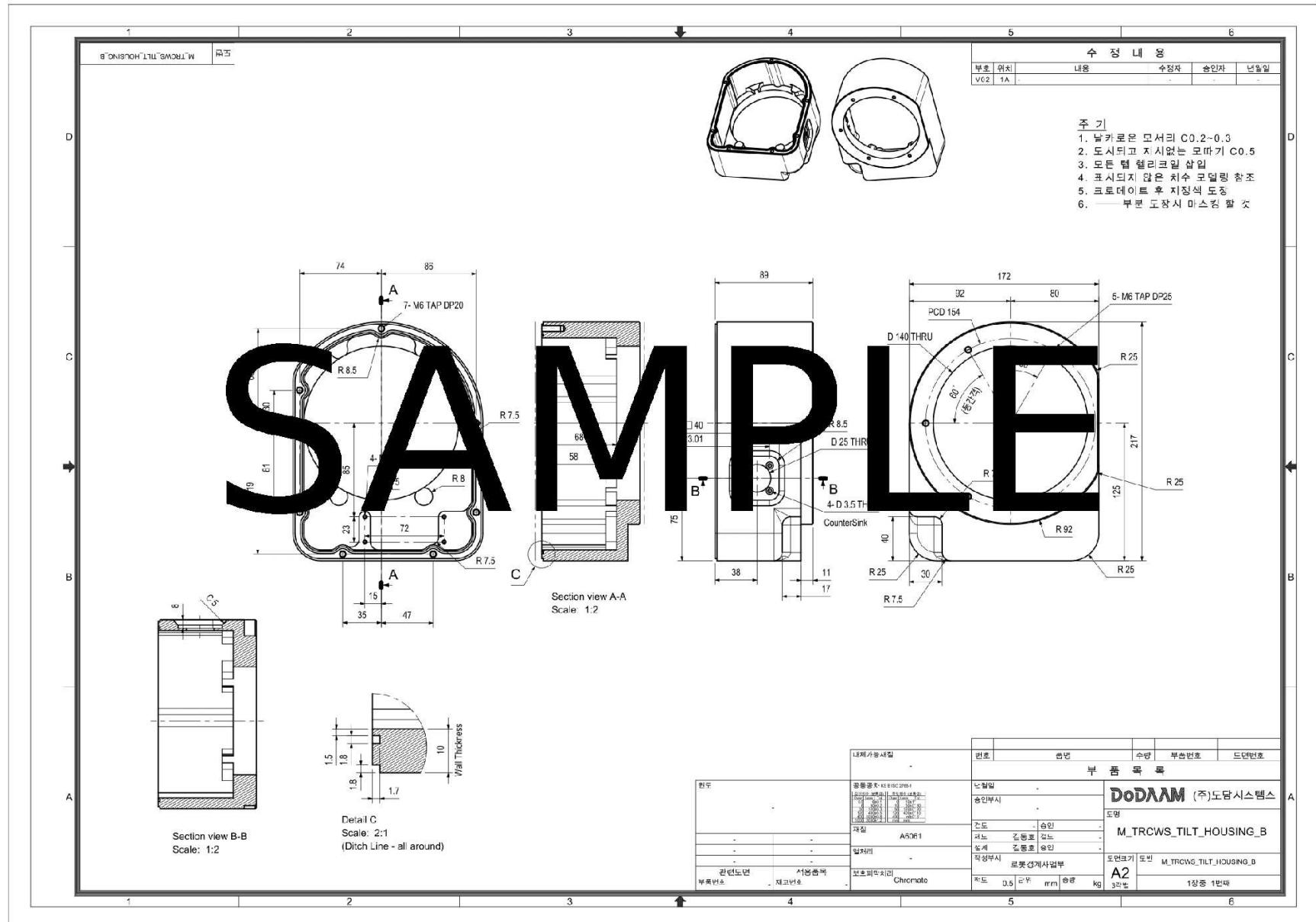
• JingoWiki (Wiki)

The screenshot shows a Firefox browser window displaying the [huBright Wiki - PartNumber](http://192.168.2.11:3100/wiki/PartNumber) page. The page title is "PartNumber". It contains sections for "규칙 문서" (with a link to a PDF) and "공용부품". A table lists common parts with their codes and descriptions. The sidebar on the left includes links for Services (Samba, Wiki, PLM, Gitea), Environment (Setting, PC), Rules (부품명칭부부여규칙, 부품번호부부여규칙, Logo), and Project Management (ERP업무, 거래업체현황). The top bar shows several open tabs and the date/time: 20180518 금 15:28.

기호	설명	규격
R	Round Head Screw	
C	Counter Sink Screw	
W	Wrench Bolt	
G	Counter Sink Wrench Bolt	
K	Ultra Low Head Wrench Bolt	https://us.misumi-ec.com/vona2/detail/110302280540/
H	Hex Head Bolt	
S	Set Screw	
N	Nut	
B	Bearing	
E	E-Ring	
T	Retainer Ring Shaft	
L	Retainer Ring Hole	
A	Plane Washer	
D	Spring Washer	

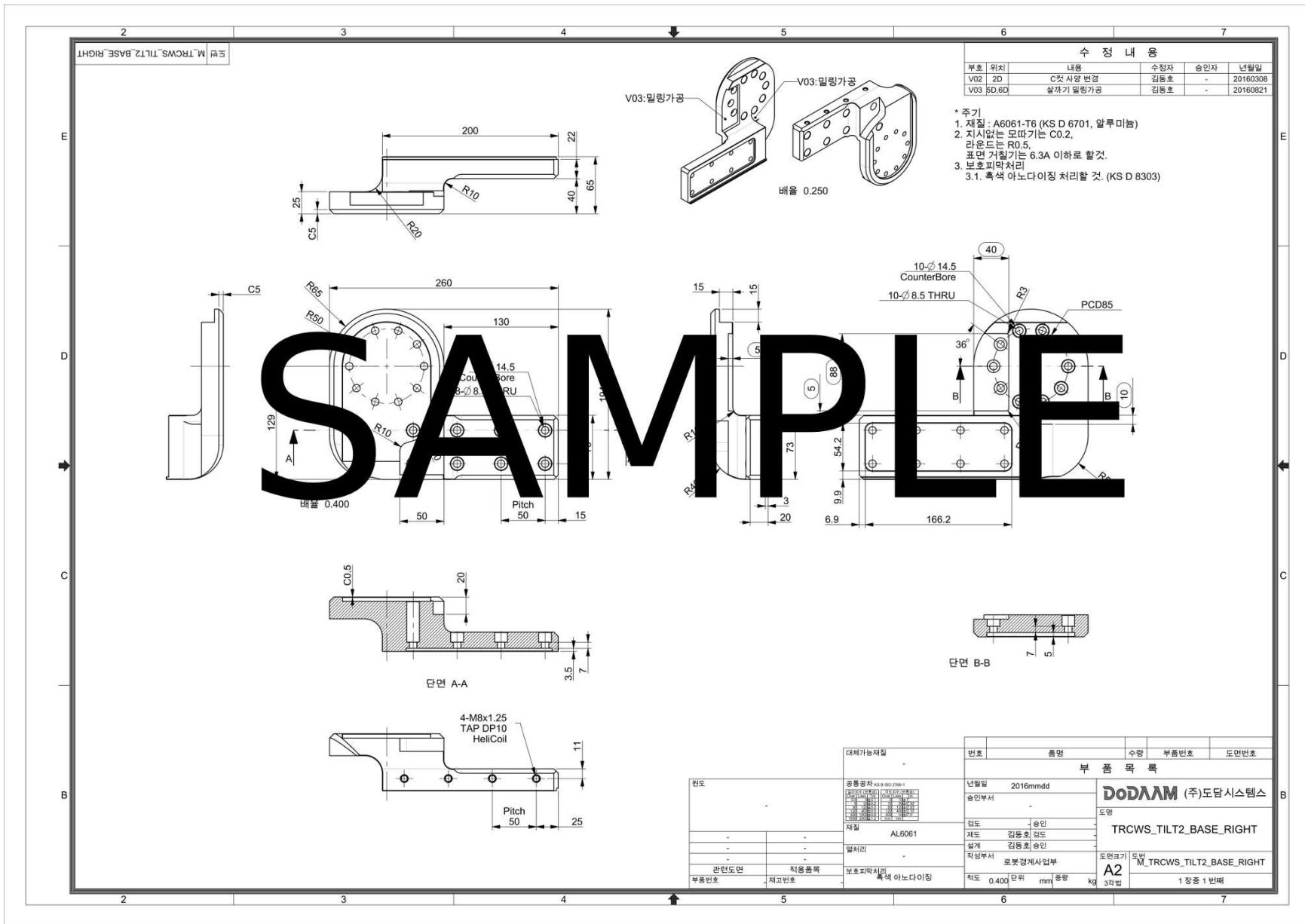
Developed with Node.js, Markdown & Git

- CATIA autosetup



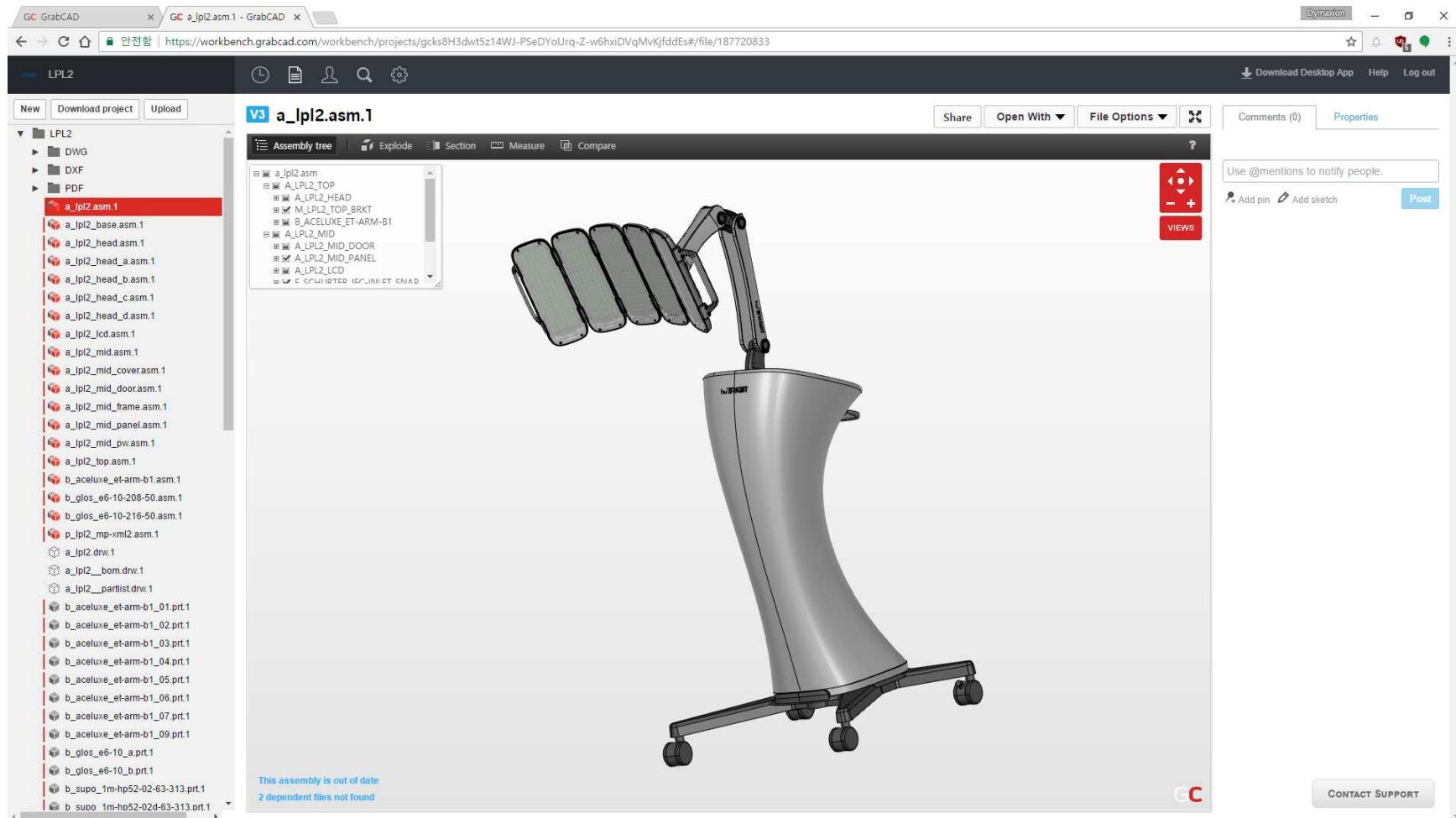
Batch Script

- PTC CREO autosetup



Context Menu, Batch Script

• GrabCAD Workbench (PDM)



Based on SVN

Take this technical superiority!

- dymaxion.kim@gmail.com
- dymaxionkim.github.io
- *This Portfolio in PDF*



