01/05/2020 **Cursos y Master en CATIA**

- **Cursos de CATIA de** **50 horas**
- **Curso Expres de CATIA** **100 horas**
- **Curso de Diseño** **200 horas**
- **Curso de CATIA CAE + CAM** **200 horas**
- **Curso de Experto** **200 horas**
- **Curso de Especialista** **200 horas**
- **Master de CATIA** **400 horas**
- **Master de CATIA** **600 horas**
- **Máster Total en CATIA** **800 horas**

Cursos de CATIA 50 horas (presenciales)

- Diseño
- Superficies
- Simulaciones
- Elemento finito
- Sheet Metal
- Mecanizado
- Moldes
- Piping, Tubing y HVAC
- Composites
- AEC Plant
- Electrical
- Utillaje

Cursos de CATIA 100 horas (adaptables)

- CATIA Diseño
- Superficies
- Reverse Engineering
- Simulaciones
- Elemento Finito
- Mecanizado
- Piping, Tubing y HVAC

CATIA Diseño
200 horas Curso online (adaptables)

Incluye los módulos o Workbenches:

01. Sketcher,
02. Part Design,
03. Knowledge
04. F. Tolerancing & Annotation
05. Wireframe,
06. G.Shape Design
07. Assembly,
08. Space Analysis,
09. P. Tolerancing & Annotation
10. Photo Editor
11. Real Time Rendering
12. Ergonomics
13. DMU Navigator
14. Catalog Editor
15. Material Library
16. Drafting,
17. DMU Fitting
18. DMU Kinematics

Se compone de:

1. **Diseño**
2. **Sólidos**
3. **Superficies**
4. **Ensamblaje**
5. **Ergonomics**
6. **Foto Estudio**
7. **Edición de Catalogos**
8. **Librería de Materiales**
9. **Impresión de Planos**
10. **Montajes automáticos**
11. **Simulación de movimiento**

CATIA CAM + CAE
200 horas Curso online (adaptables)

Incluye los módulos o Workbenches:

01. DMU Fitting
02. DMU Kinematics
03. Generative Sheet Metal Design
04. Sheet Metal Design
05. Sheet Metal Production
06. Aerospace Sheet Metal Design
07. Generative Structural Analysis (EF)
08. Advanced Meshing Tools
09. Knowledge Advisor
10. Machining Prismatic
11. Machining Milling (Fresado)
12. Machining Lathe (Torneado)
14. Machining Advanced
15. NC MachineTool Builder
16. NC Machine Tool Simulation

Se compone de:

1. **Montajes automáticos**
2. **Detección de fallos**
3. **Simulaciones**
4. **Sheet Metal**
5. **Elemento Finito**
6. **Mecanizado**

CATIA Experto
200 horas curso online (adaptables)

Incluye los módulos o Workbenches:

01. Wireframe
02 Generative Shape Design
07. Core & Cavity Design
04. Sketch Tracer
05. Free Style
06. Imagine & Shape
07. Automotive Class A
08 . ICEM Shape Design AeroExpert
09. STL Rapid Prototyping
10. Digitized Shape Editor
11. Quick Surface Reconstruction
12. DMU Optimizer
13. Healing asistant
14. Composites
15. Composites Grid Design

Se compone de:

1. **Superficies avanzadas**
2. **Composites**
3. **Circuitos Eléctricos**
4. **Cableado Eléctrico**
5. **Tuberías Rígidas**
6. **Tubos Flexibles**
7. **Conducciones de aire**
8. **Moldes**
9. **Soldadura**
10. **Estructuras**

CATIA Especialista
200 horas curso online (adaptables)

Incluye los módulos o Workbenches:

01. Electrical Circuit Board
02. Electrical Harness
03. Piping
04. Tubing
05. HVAC
06. AEC Plant
07. Funtional Molded Part
08. Mold Tooling Design
09. Weld Design
10. Structure

Se compone de:

1. **Circuitos Eléctricos**
2. **Cableado Eléctrico**
3. **Tuberías Rígidas**
4. **Tubos Flexibles**
5. **Conducciones de aire**
6. **Moldes**
7. **Soldaduras**
8. **Estructuras**
9. **Planta de fábrica**

Master de CATIA Flexible de 400 ó 600 horas online
Contenido a elegir 30 ó 40 Workbenches de la lista

Incluye los módulos o Workbenches:

01. Sketcher
02. Part Design
03. Knowledge
04. Functional Tolerancing & Annotation
05. Wireframe
06. Generative Shape Design
07. Core & Cavity Design
08. Sketch Tracer
09. Free Style
10. Imagine & Shape
11. Automotive Class A
12 . ICEM Shape Design AeroExpert
13. STL Rapid Prototyping
14. Digitized Shape Editor
15. Quick Surface Reconstruction
16. DMU Optimizer
17. Ergonomics
18. Photo Studio
19. Real time Rendering
20. Product Structure
21. Assembly
22. Space Analysis
23. Product Tolerancing & Annotation
24. DMU Navigator
25. Catalog Editor
26. Material Library
27. Drafting
28. DMU Fitting
29. DMU Kinematics
30. Generative Sheet Metal Design
31. Sheet Metal Design
32. Sheet Metal Production
33. Aerospace Sheet Metal Design
34. Generative Structural Analysis (EF)
35. Advanced Meshing Tools
36. Knowledge Advisor
37. Machining Prismatic
38. Machining Milling (Fresado)
39. Machining Lathe (Torneado)
40. Machining Advanced
41. NC MachineTool Builder
42. NC Machine Tool Simulation
43. Composites
44. Composites Grid Design
45. Electrical Circuit Board
46. Electrical Harness
47. Piping
48. Tubing
49. HVAC
50. AEC Plant
51. Funtional Molded Part
52. Mold Tooling Design
53. Healing Assistant
54. Weld Design
55. Structure

Se compone de:

1. **Diseño**
2. **Sólidos**
3. **Superficies**
4. **Ensamblaje**
5. **Ergonomics**
6. **Foto Estudio**
7. **Edición de Catalogos**
8. **Librería de Materiales**
9. **Impresión de Planos**
10. **Montajes automáticos**
11. **Detección de fallos**
12. **Simulaciones**
13. **Chapa**
14. **Elemento Finito**
15. **Mecanizado**
16. **Composites**
17. **Circuitos Eléctricos**
18. **Cableado Eléctrico**
19. **Tuberías Rígidas**
20. **Tubos Flexibles**
21. **Conducciones de aire**
22. **Moldes**
23. **Soldadura**
24. **Estructuras**
25. **Planta de fábrica**
26. **Coordenadas desde Excel**
27. **Nube de Puntos**
28. **Reverse Engineering**
29. **CATIA V6 actualización**

Máster de CATIA 800 horas curso online

55 Workbenches, más de 420 ejercicios, +5.000 páginas a color (Manuales, Lecciones, etc.)

Incluye los módulos o Workbenches:

01. Sketcher
02. Part Design
03. Knowledge
04. Functional Tolerancing & Annotation
05. Wireframe
06. Generative Shape Design
09. Core & Cavity Design
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10. Imagine & Shape
11. Automotive Class A
12 . ICEM Shape Design AeroExpert
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15. Quick Surface Reconstruction
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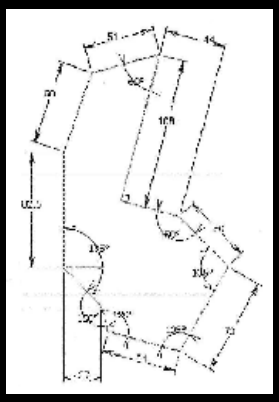
51. Funtional Molded Part
52. Mold Tooling Design
53. Healing Assistant
54. Weld Design
55. Structure

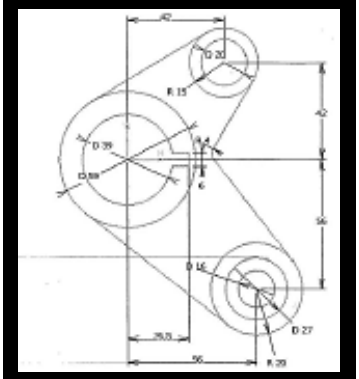
Se compone de:

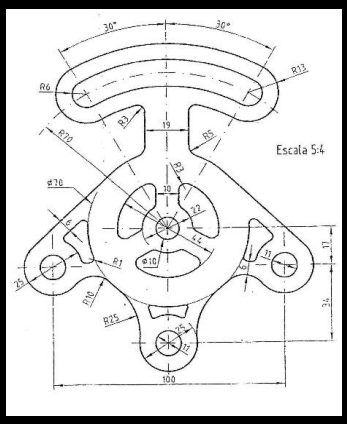
1. **Diseño**
2. **Sólidos**
3. **Superficies**
4. **Ensamblaje**
5. **Ergonomics**
6. **Foto Estudio**
7. **Edición de Catalogos**
8. **Librería de Materiales**
9. **Impresión de Planos**
10. **Montajes automáticos**
11. **Detección de fallos**
12. **Simulaciones**
13. **Chapa**
14. **Elemento Finito**
15. **Mecanizado**
16. **Composites**
17. **Circuitos Eléctricos**
18. **Cableado Eléctrico**
19. **Tuberías Rígidas**
20. **Tubos Flexibles**
21. **Conducciones de aire**
22. **Moldes**
23. **Soldadura**
24. **Estructuras**
25. **Planta de fábrica**
26. **Coordenadas desde Excel**
27. **Nube de Puntos**
28. **Reverse Engineering**

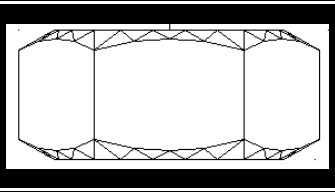
CATIA V6 actualización

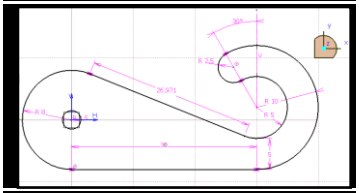
Ejercicios Sketcher

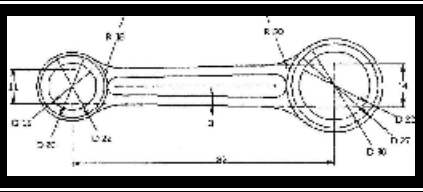


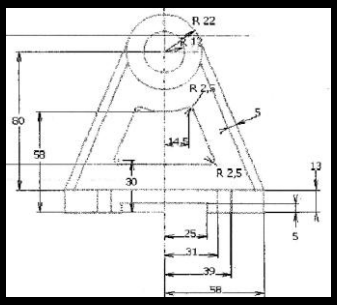


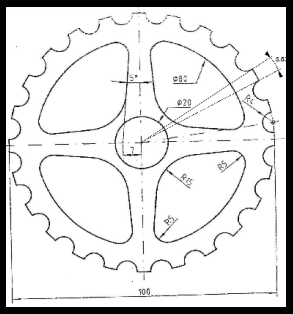


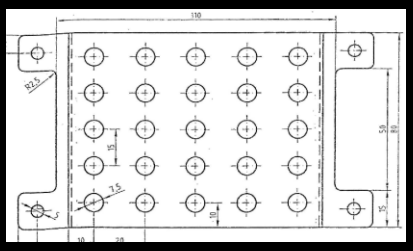




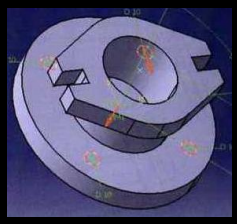


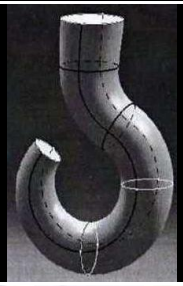


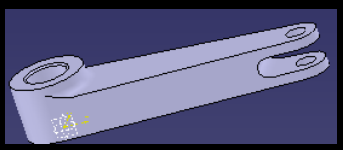


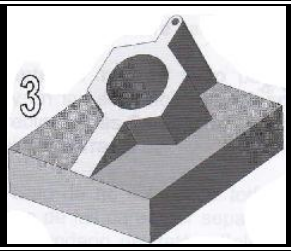


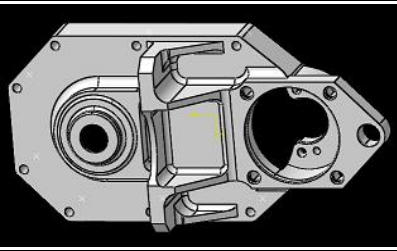
Ejercicios PartDesign

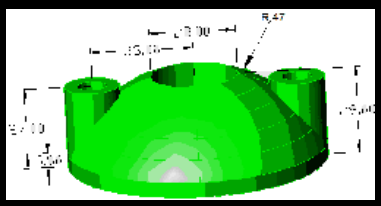


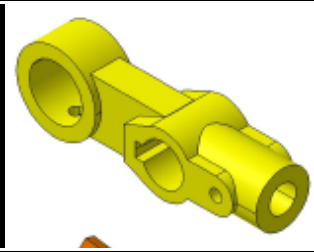


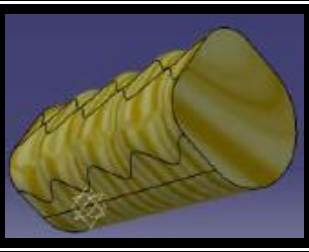


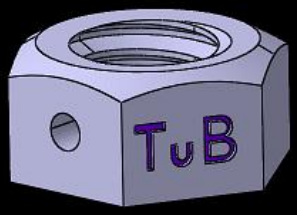


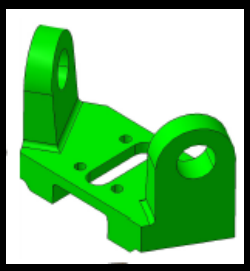


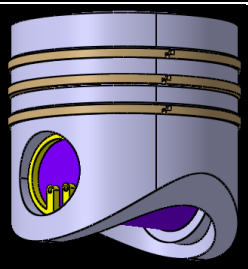


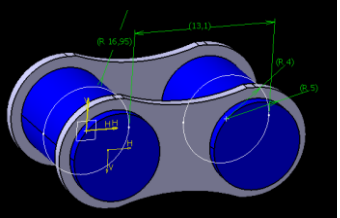


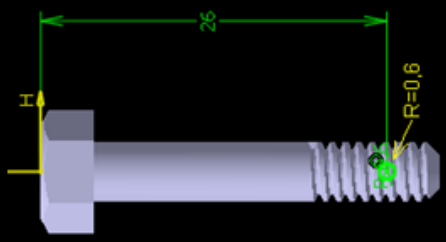




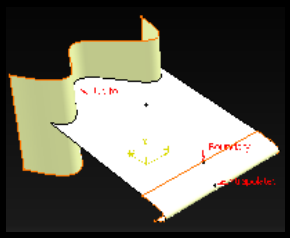


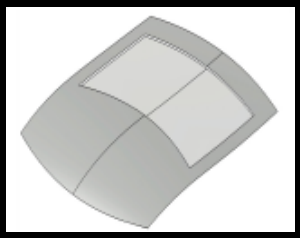


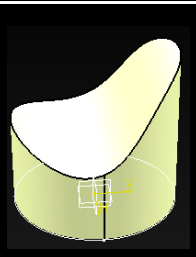


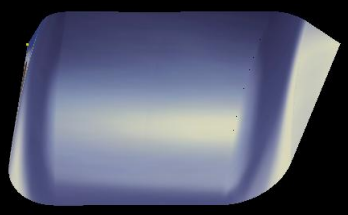


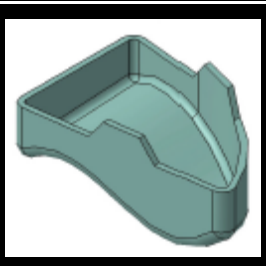
Ejercicios de superficies

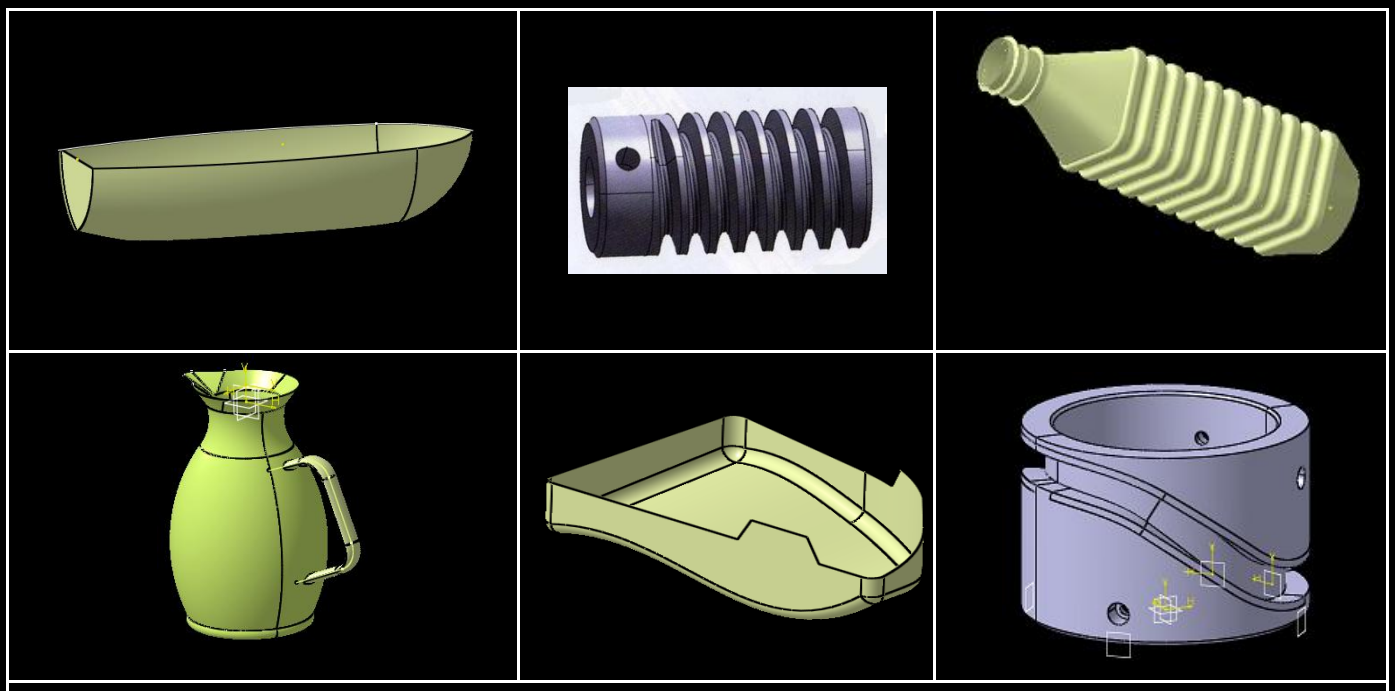






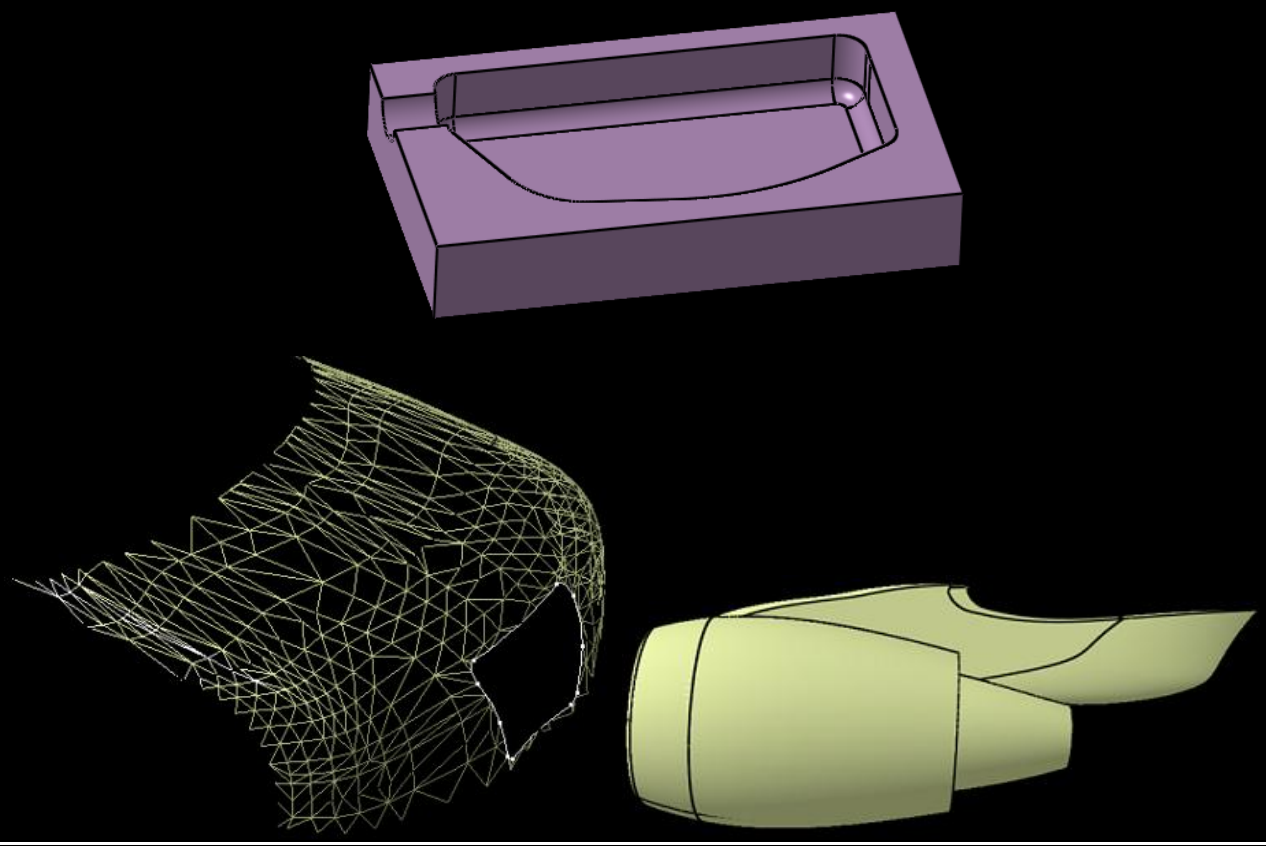


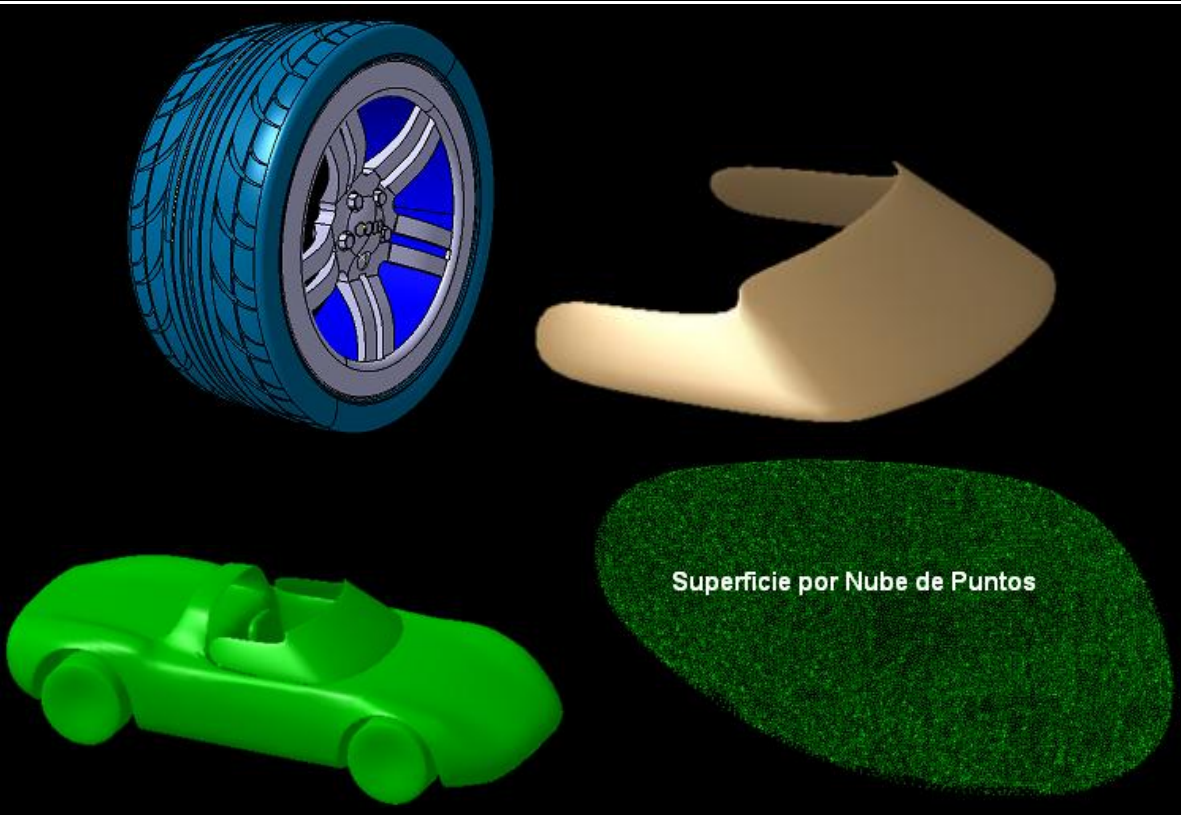




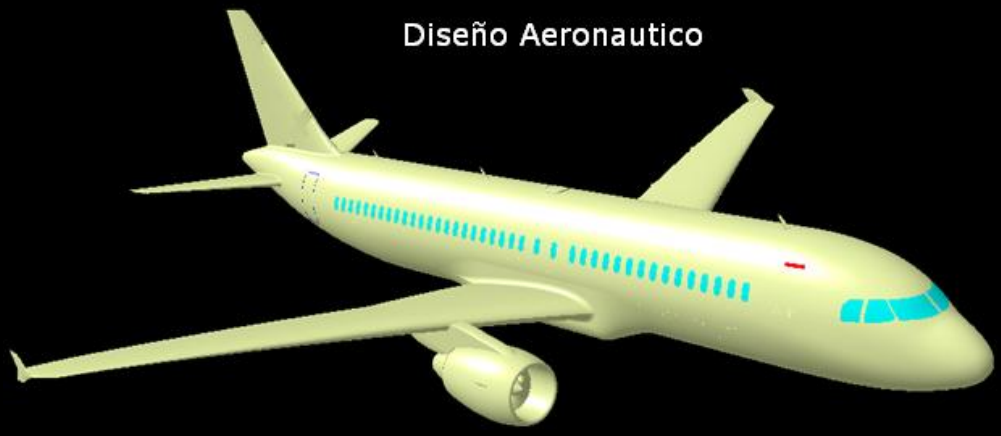
Reverse Engineering

Superficies por Tabla de Excel, por Puntos, STL, IGS, STP, Model, desde Scanner 3D

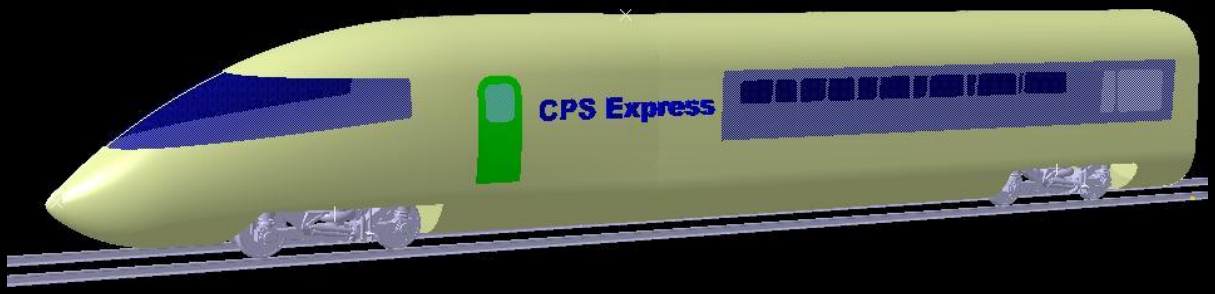




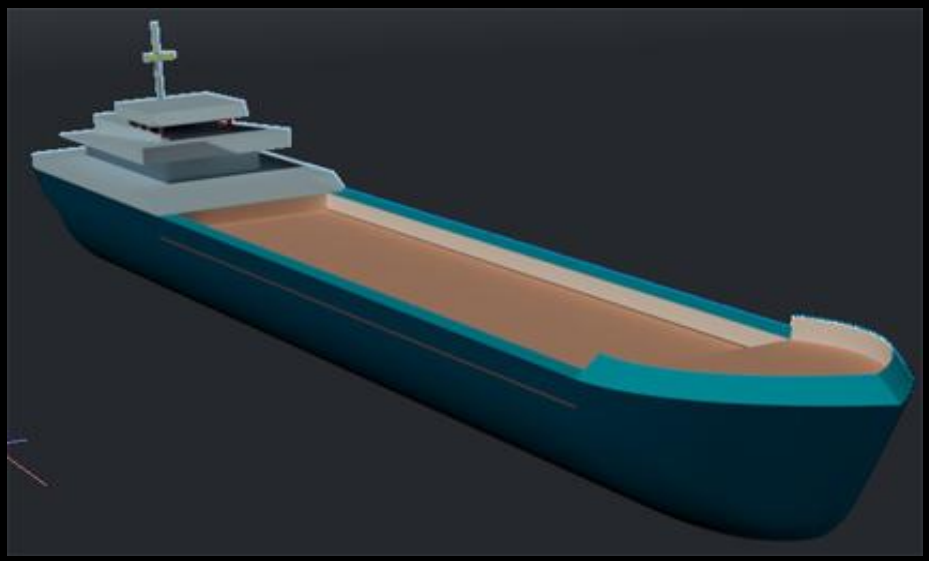
Diseño Aeronáutico con maquetas E = 1:1



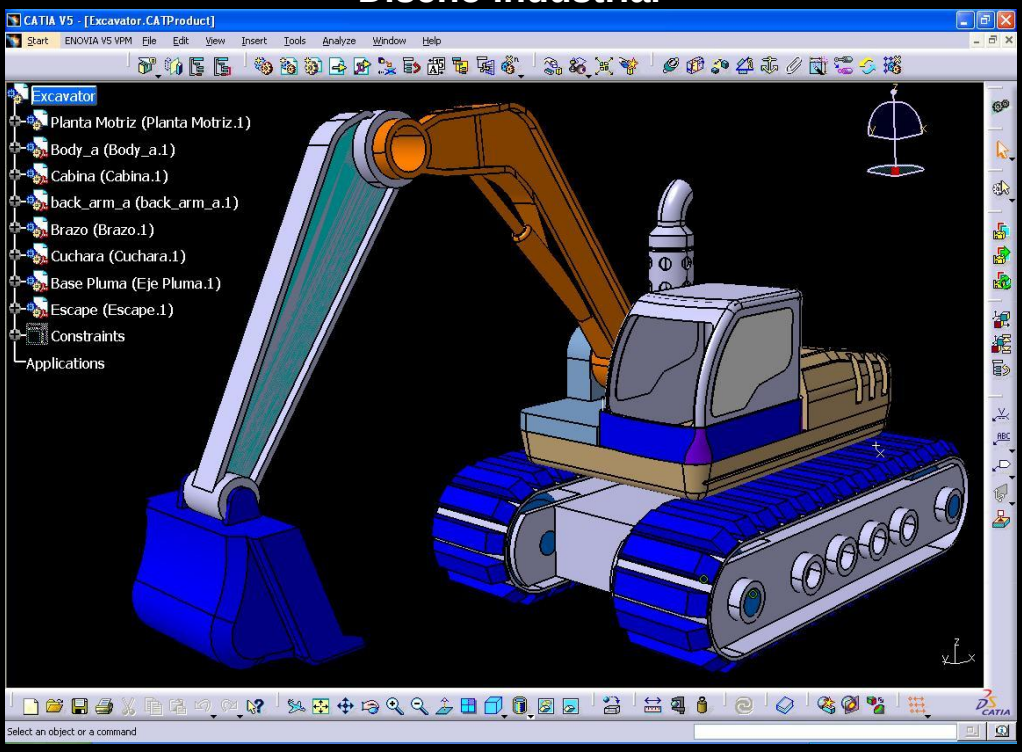
Diseño Ferroviario



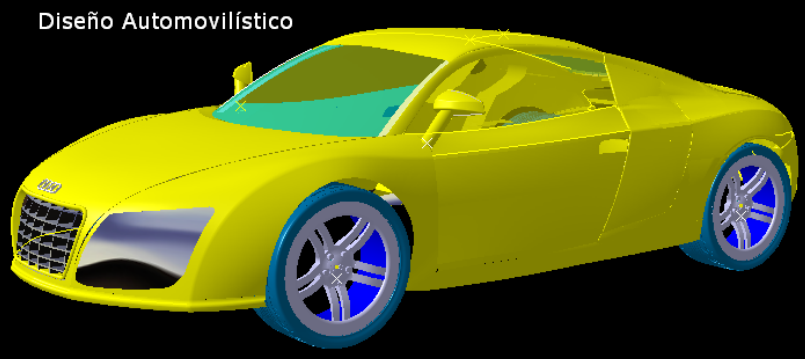
Diseño Nautico y Naval



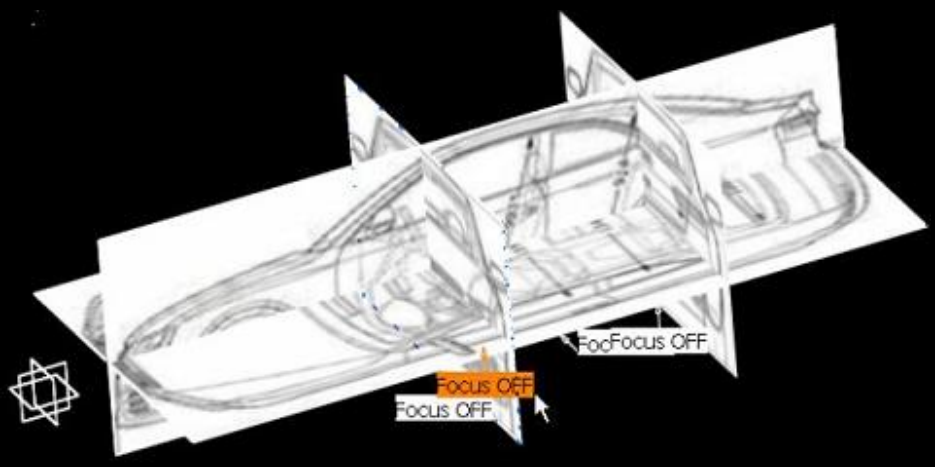
Diseño Industrial

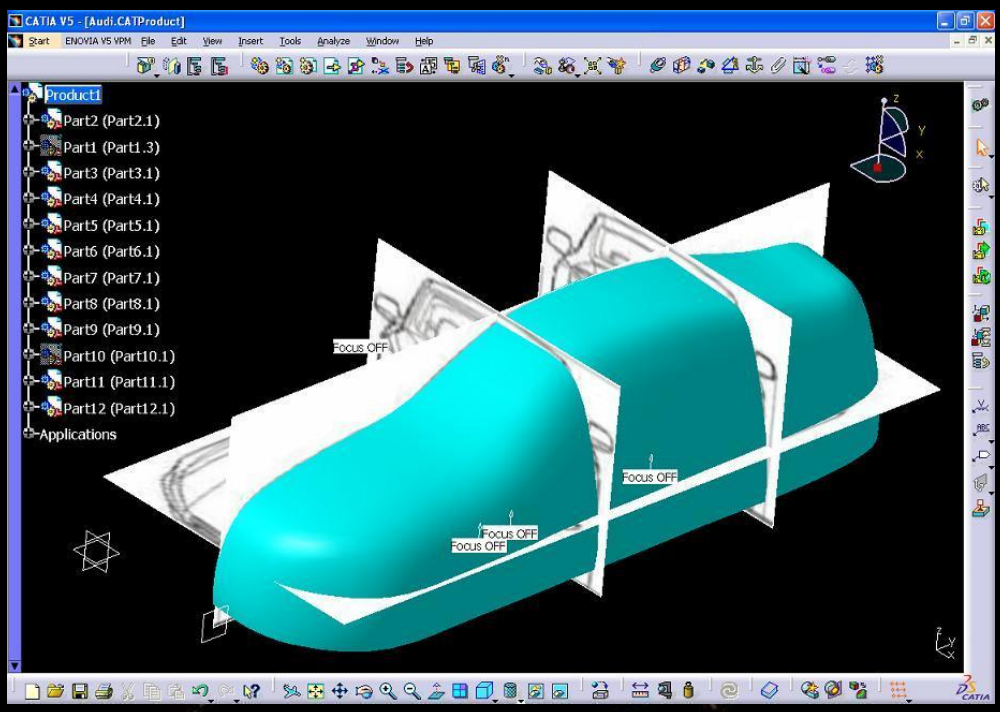


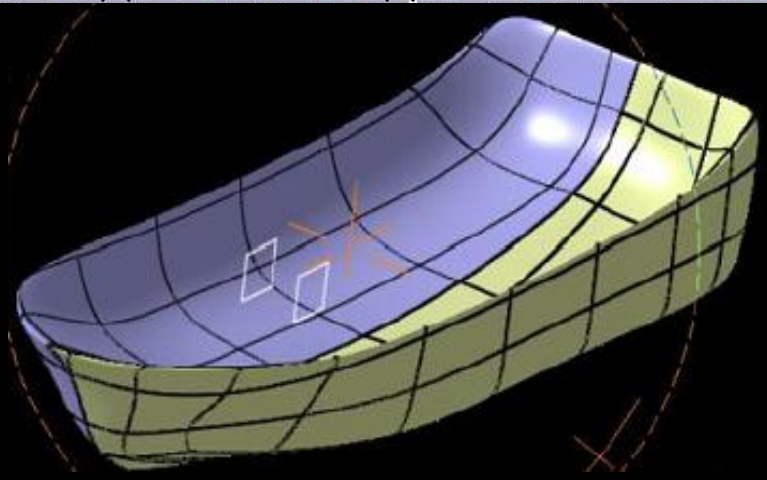
Diseño de maquetas de Automovilismo



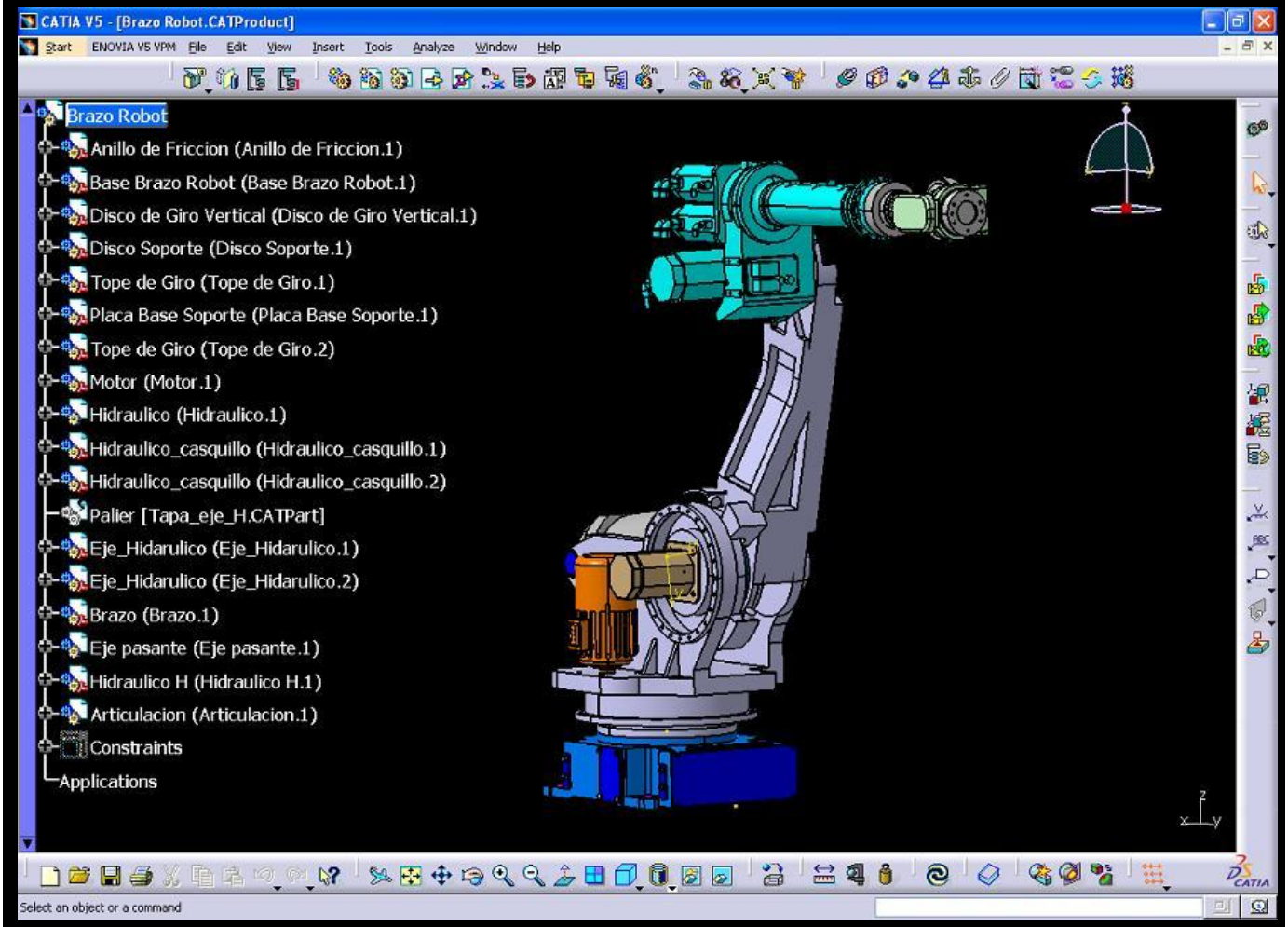
Superficies avanzadas



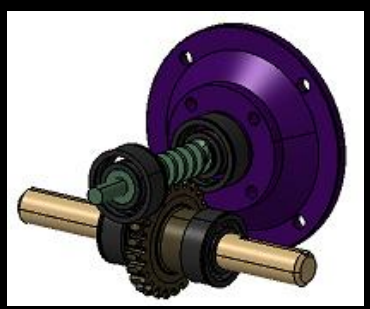


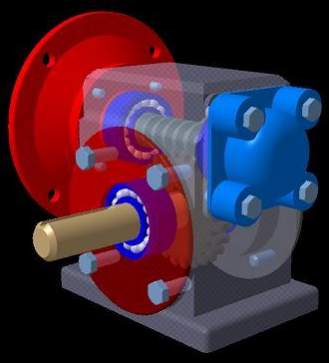


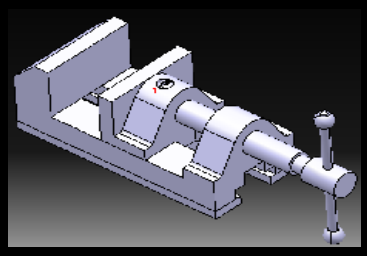
Diseño Robots de Fábrica

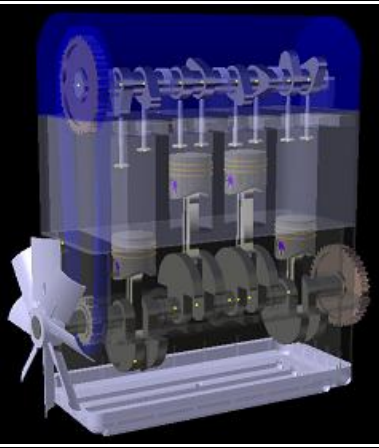
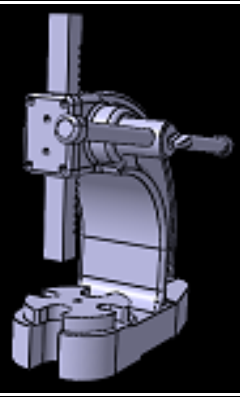
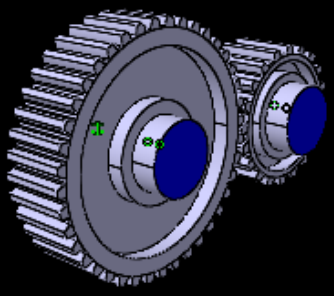
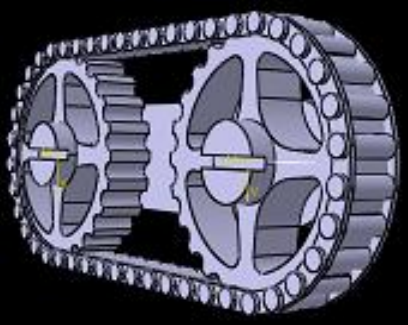
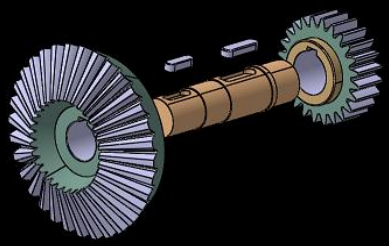
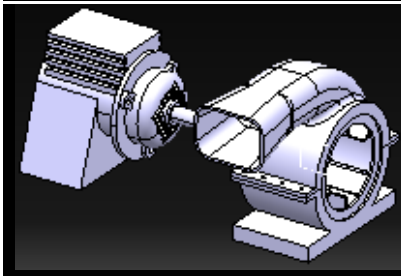
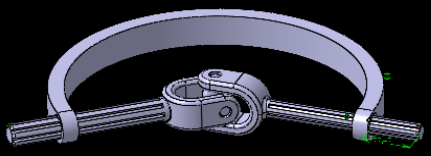


Ejercicios Assembly Design, Fitting y Kinematics

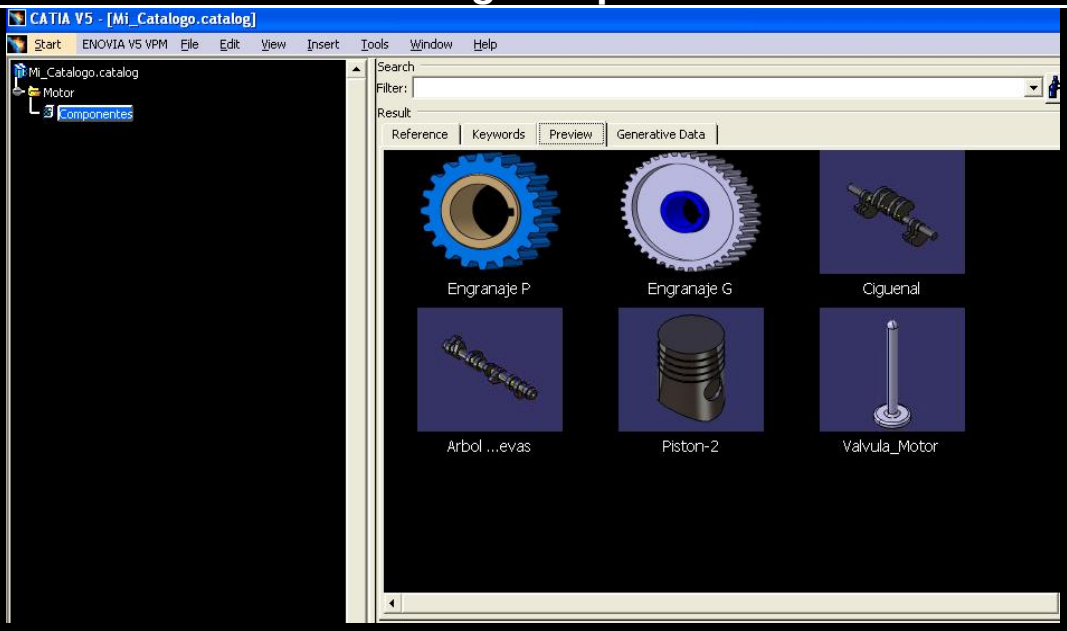




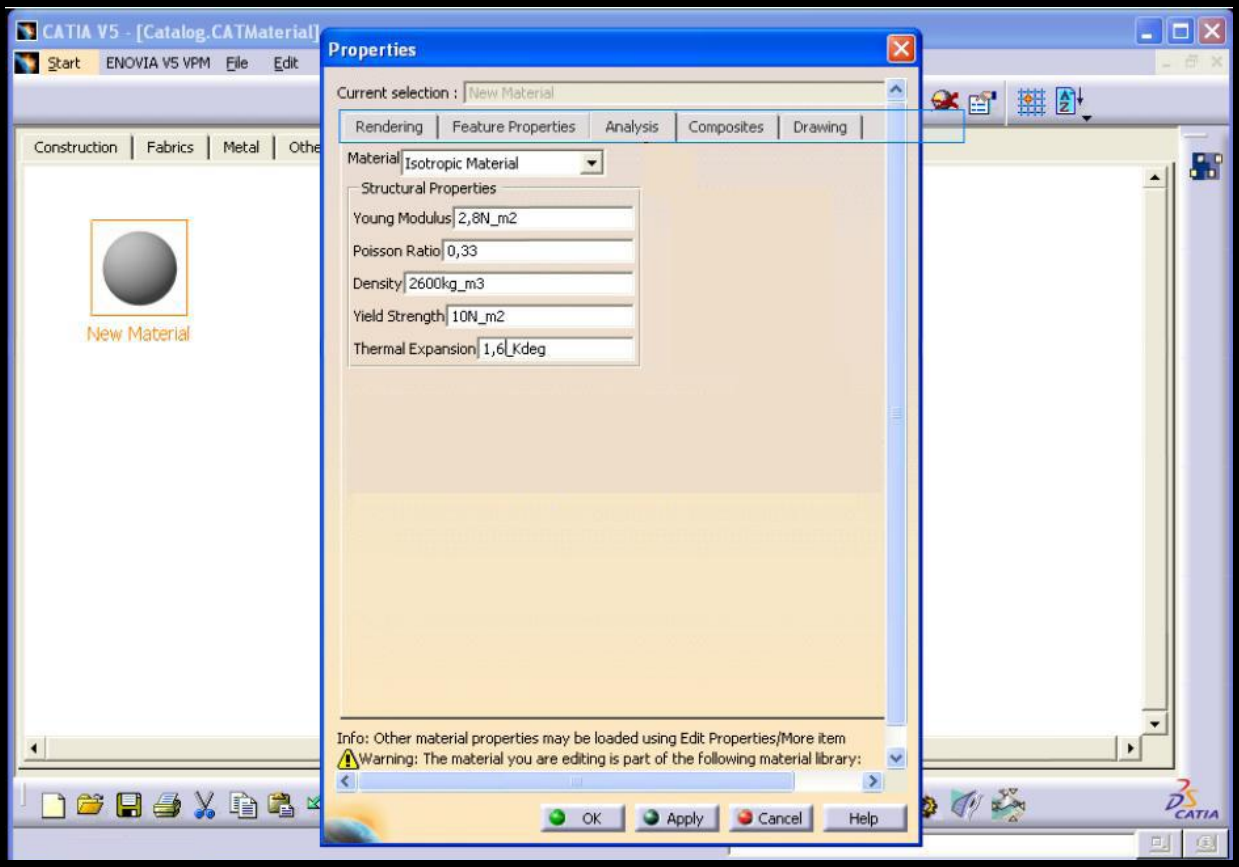


Catálogo de piezas



Librería de Materiales



Generative, Aerospace, Production, Design – Sheet Metal

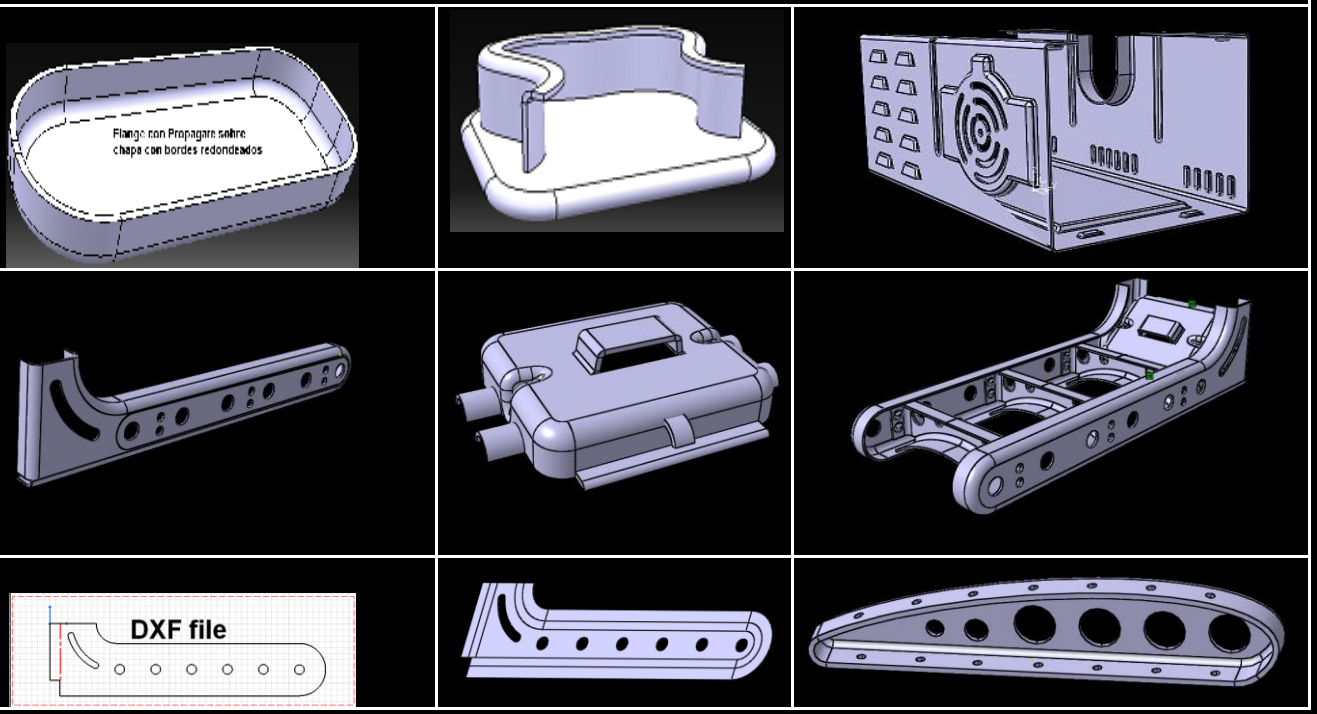
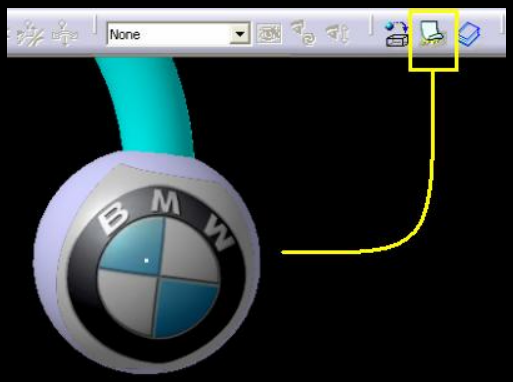
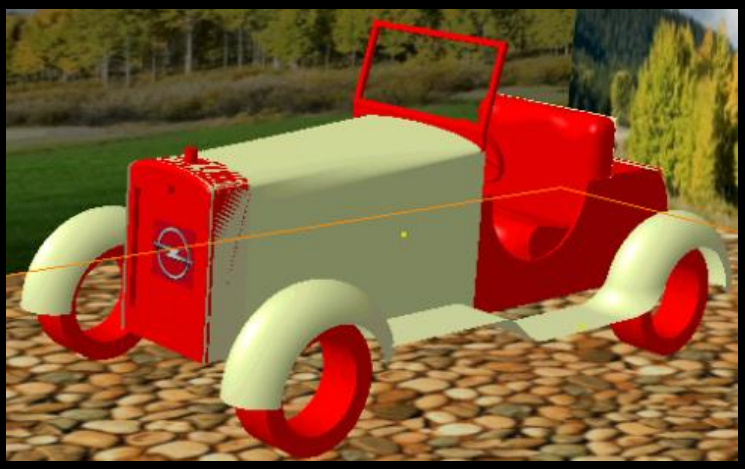
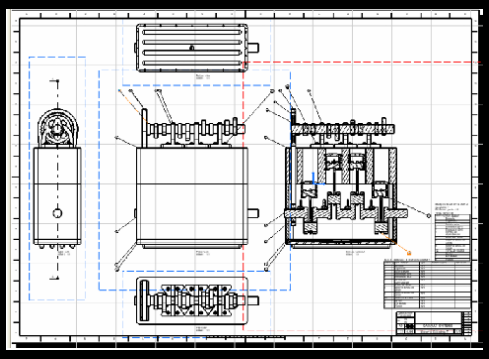


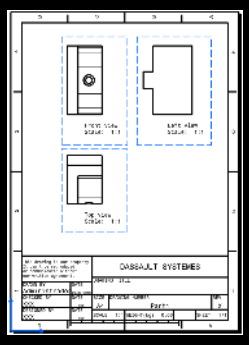
Photo Studio & Real Time Rendering

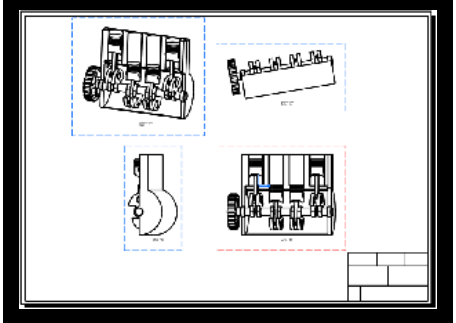




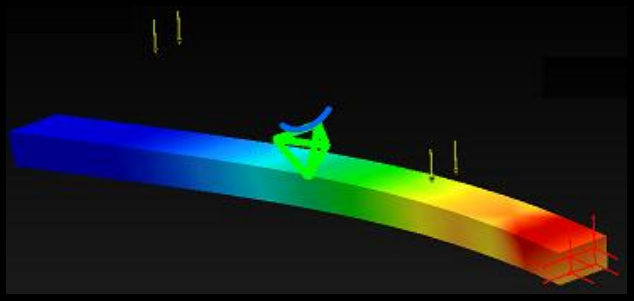
Ejercicios Drafting

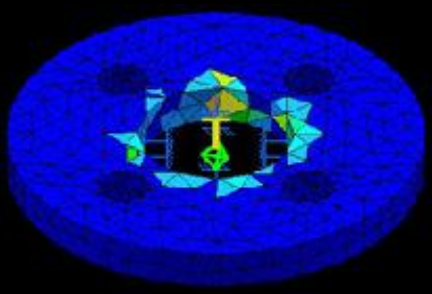




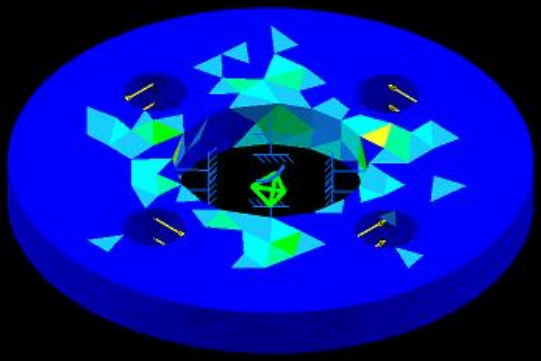


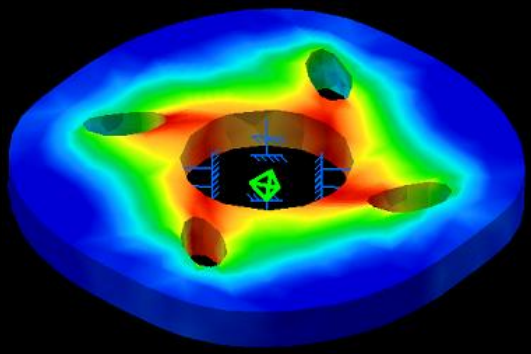
EjerciciosGenerativeStructuralAnalysis(Elemento Finito)



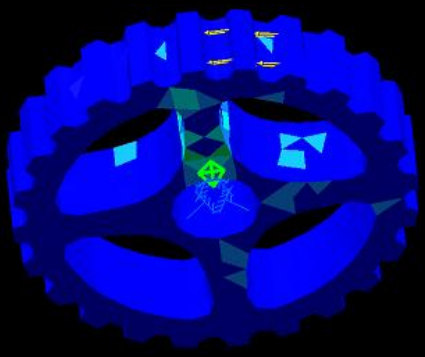


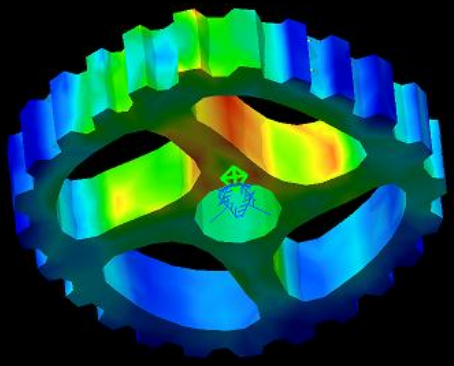
Barra deformada por carga y Disco deformado por calor



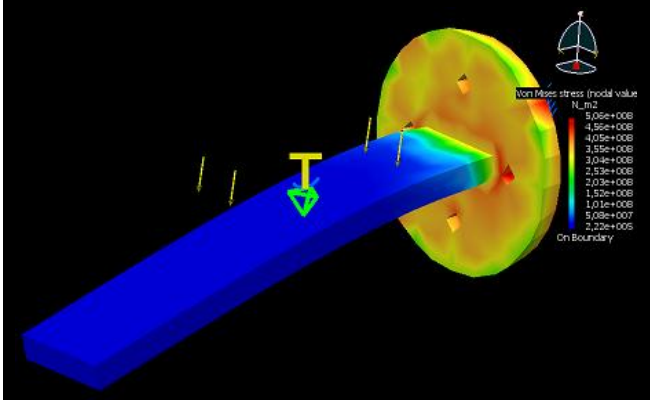


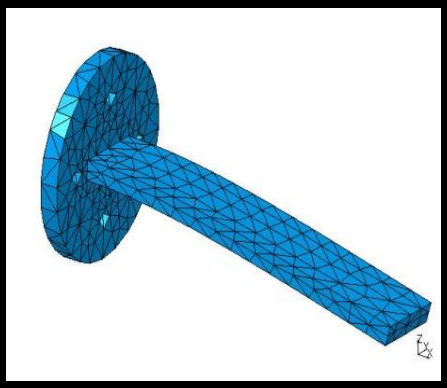
Deformación de Disco por aplicación de Fuerza tangencial a los 4 taladros



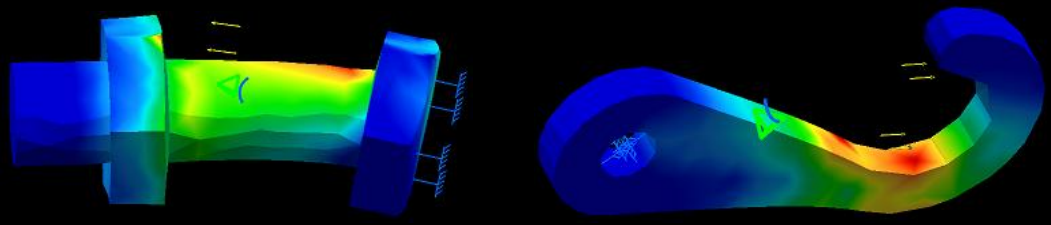


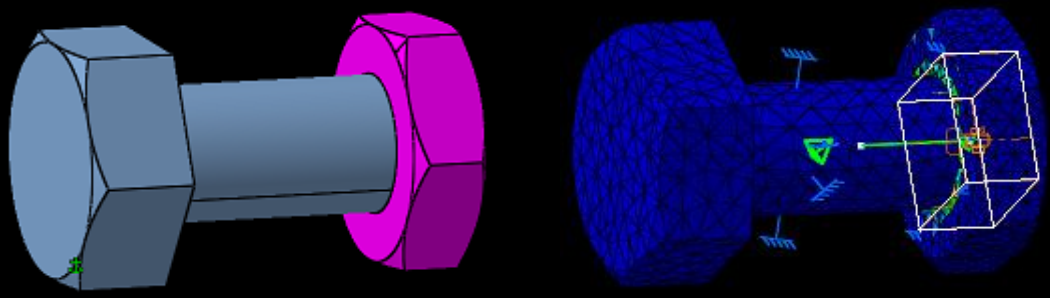
Deformación por engranaje a dos dientes





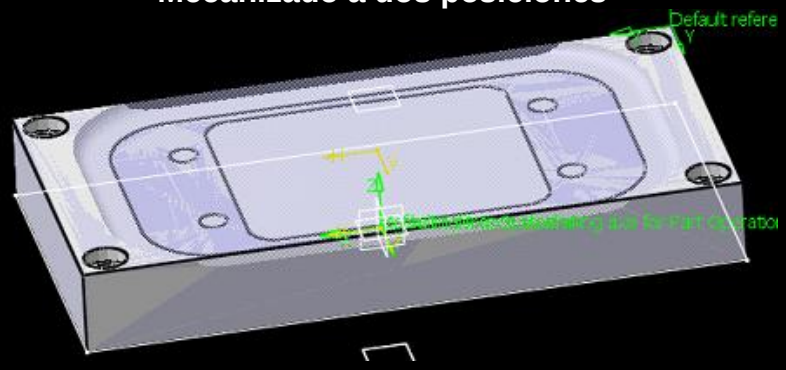
Dilatación por elevación de Temperatura y 1000KN de carga Distribuida

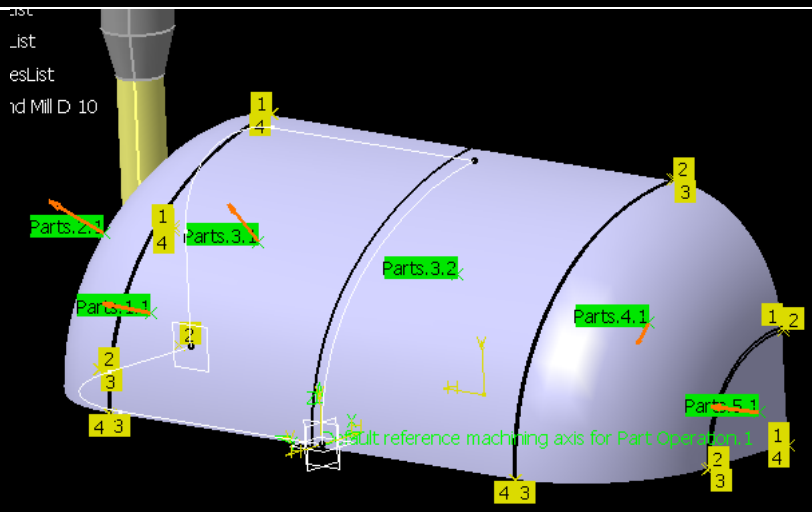


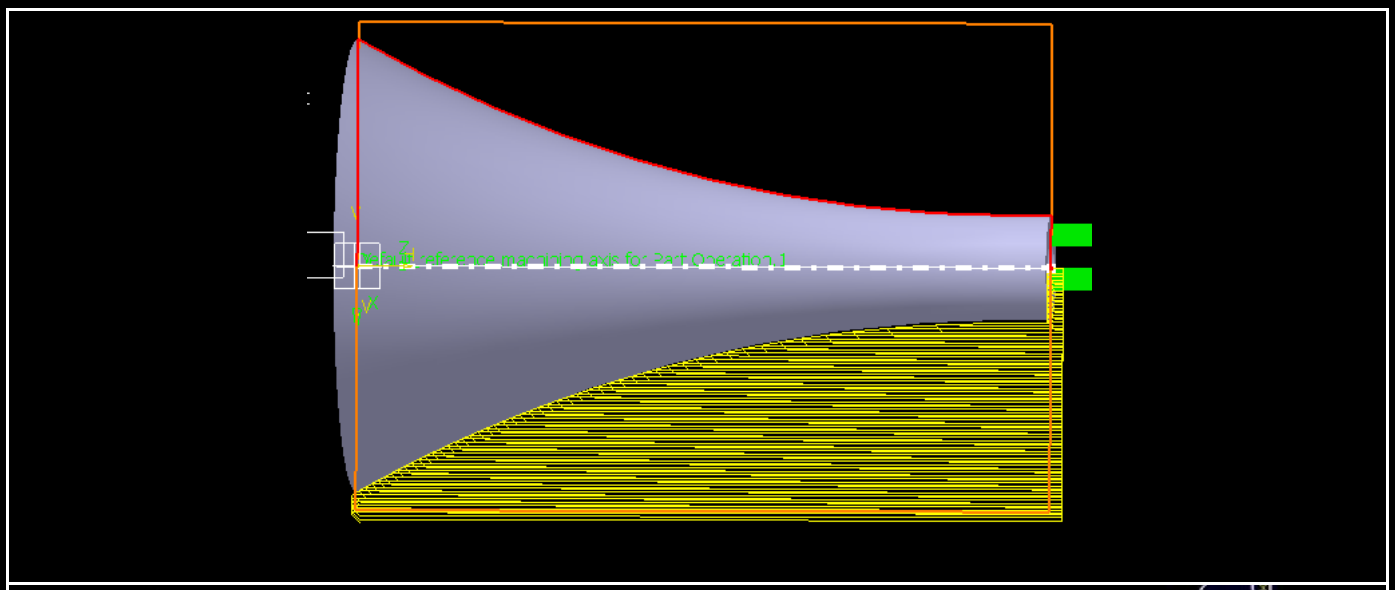


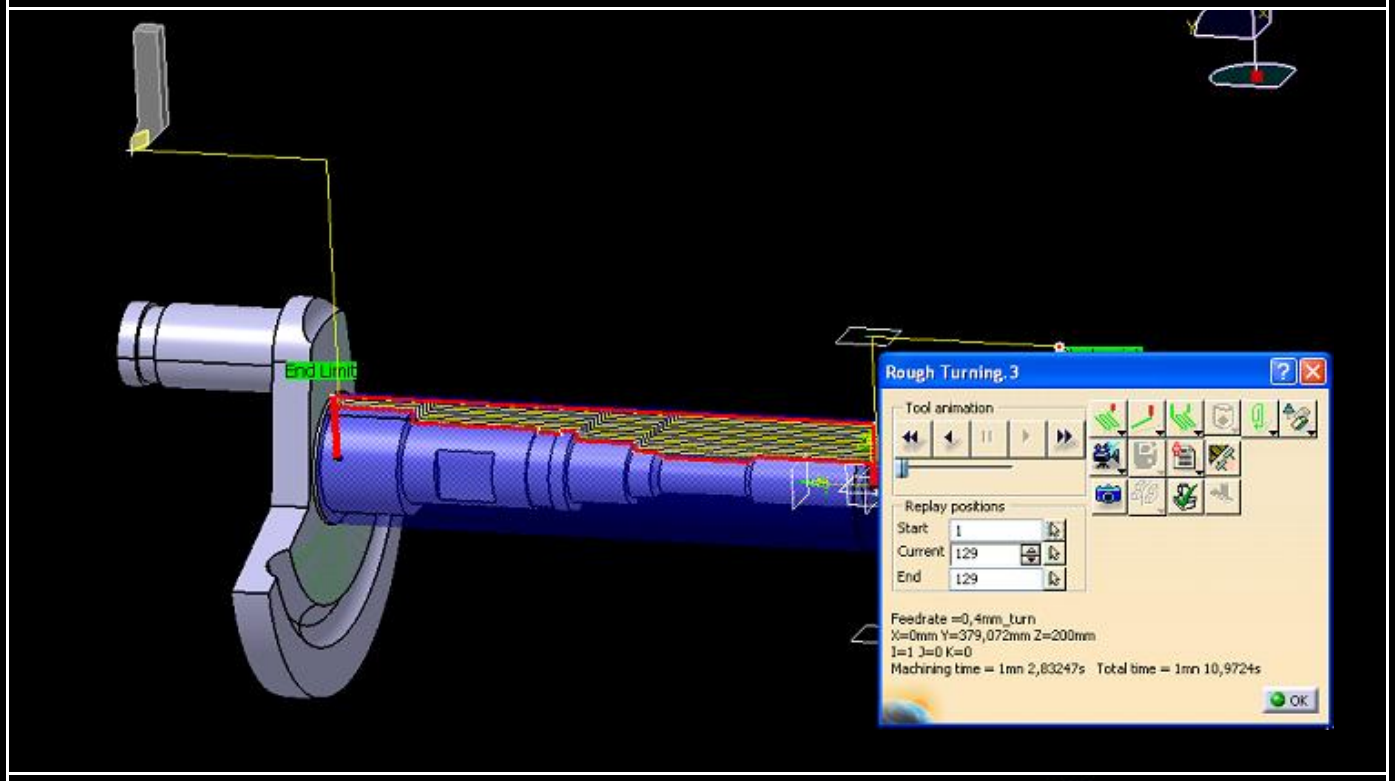
MECANIZADO(Machining)

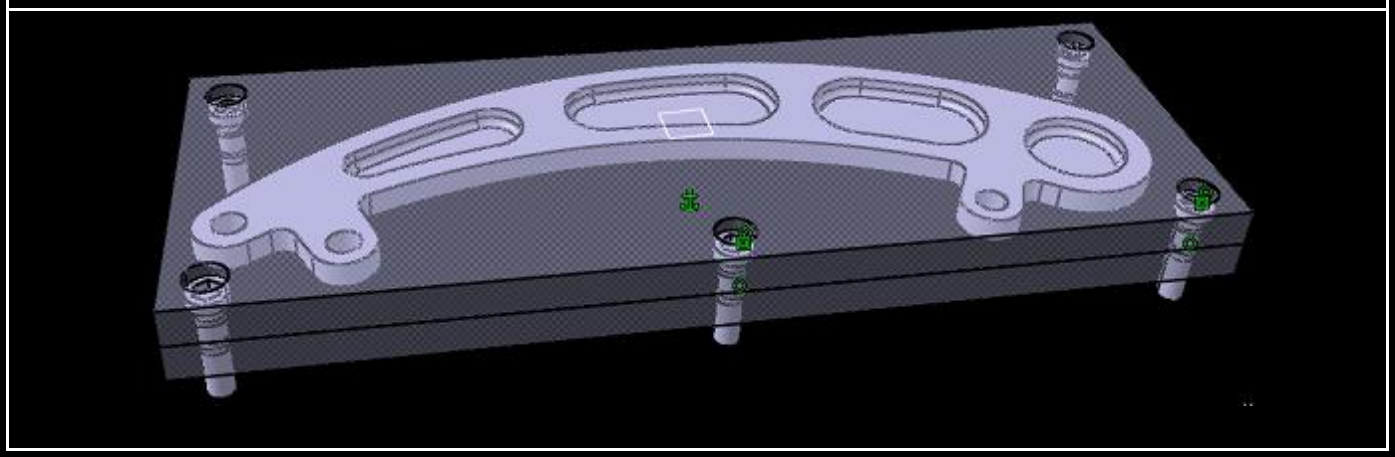
Mecanizado a dos posiciones

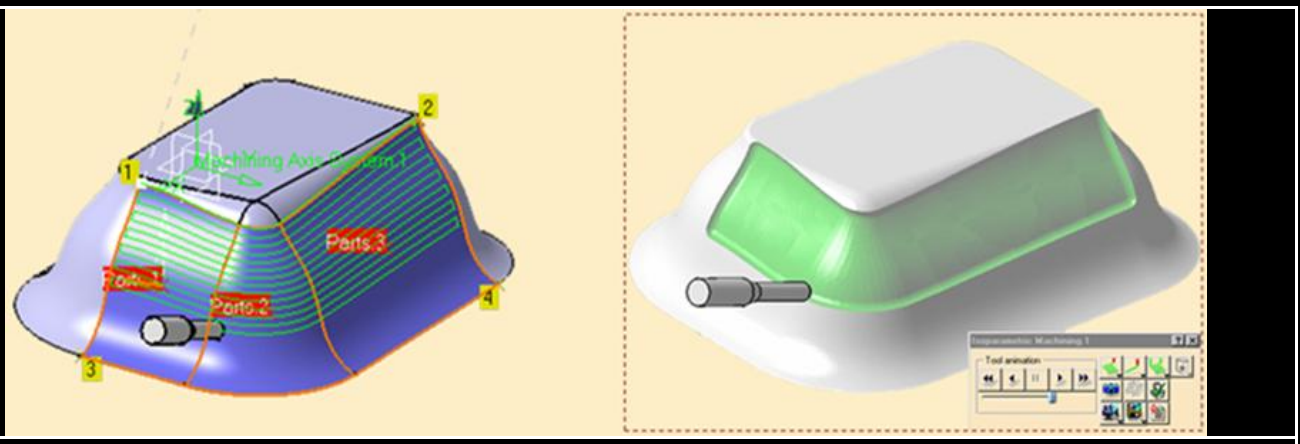







End Limit
Rough Turning.3
Tool animation
Replay positions
Start 1
Current 129
End 129
Feedrate =0,4mm_turn
X=0mm Y=379,072mm Z=200mm
I=1 J=0 K=0
Machining time = 1mn 2,83247s Total time = 1mn 10,9724s
OK



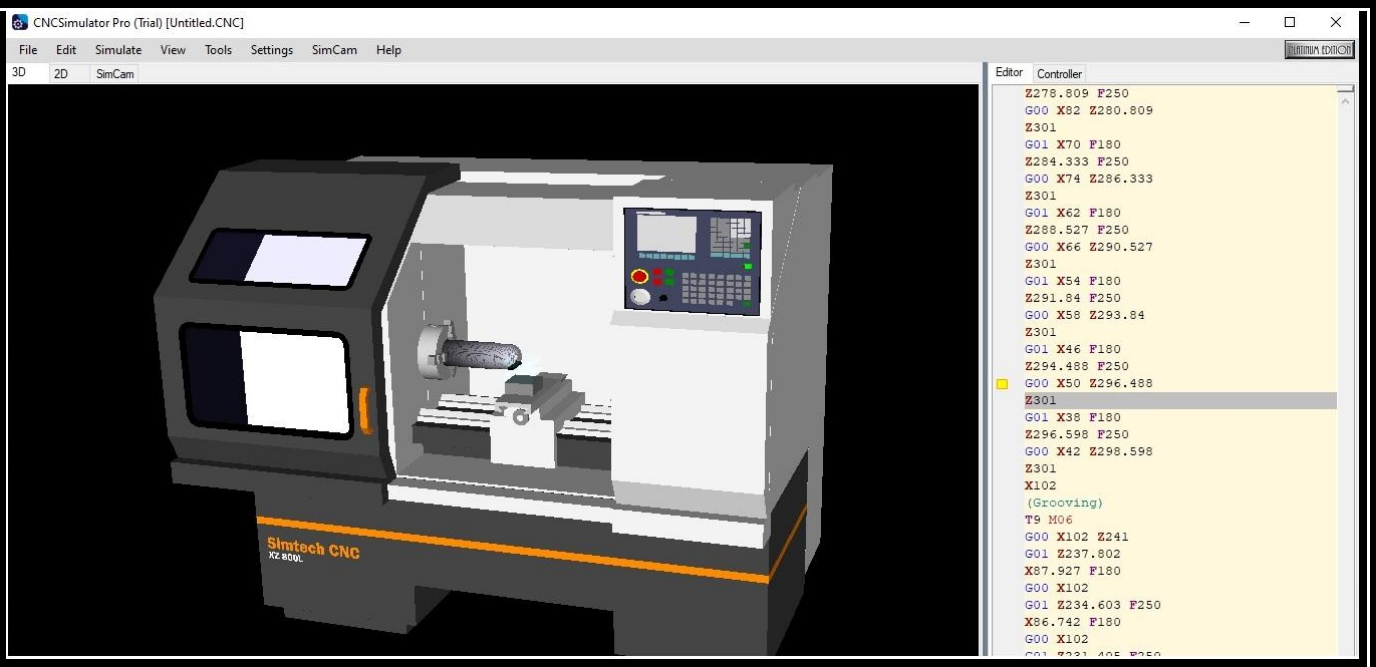


Mecanizado-1_Manufacturing_Program_1.CATNCCode - Bloc de notas

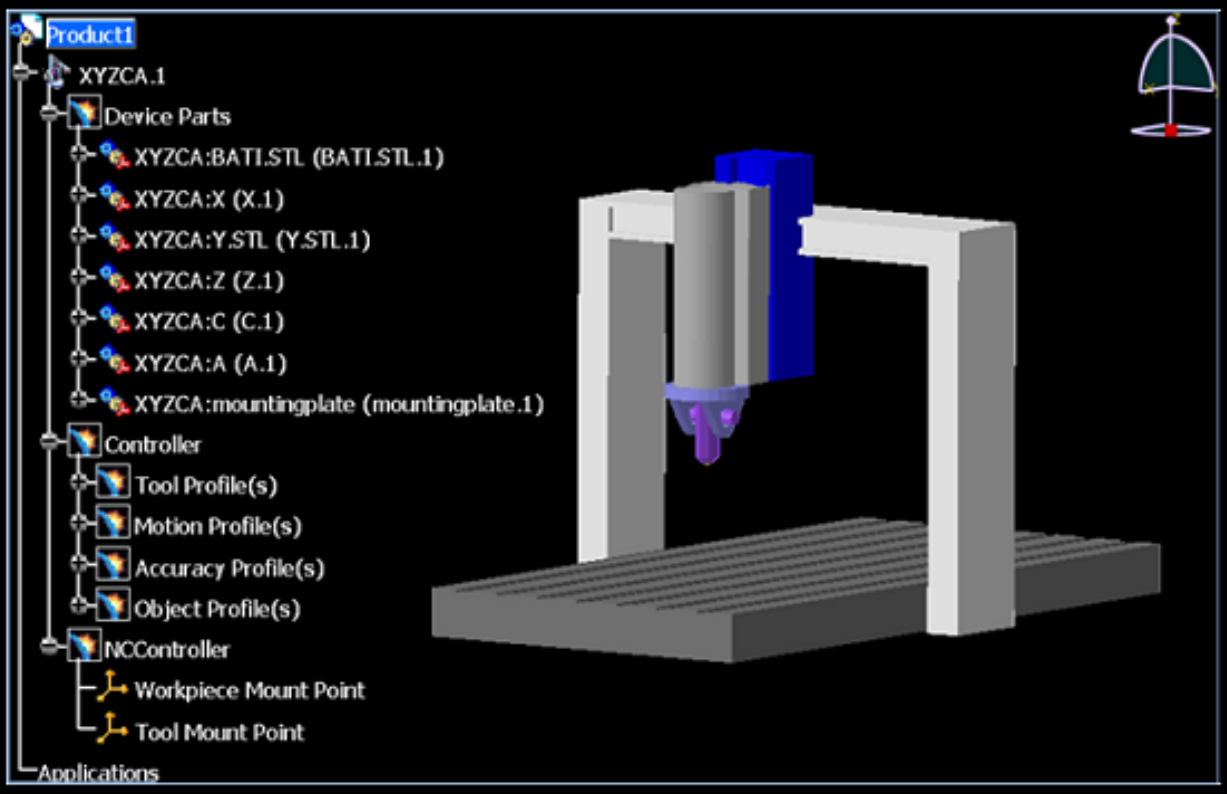
Archivo Edición Formato Ver Ayuda

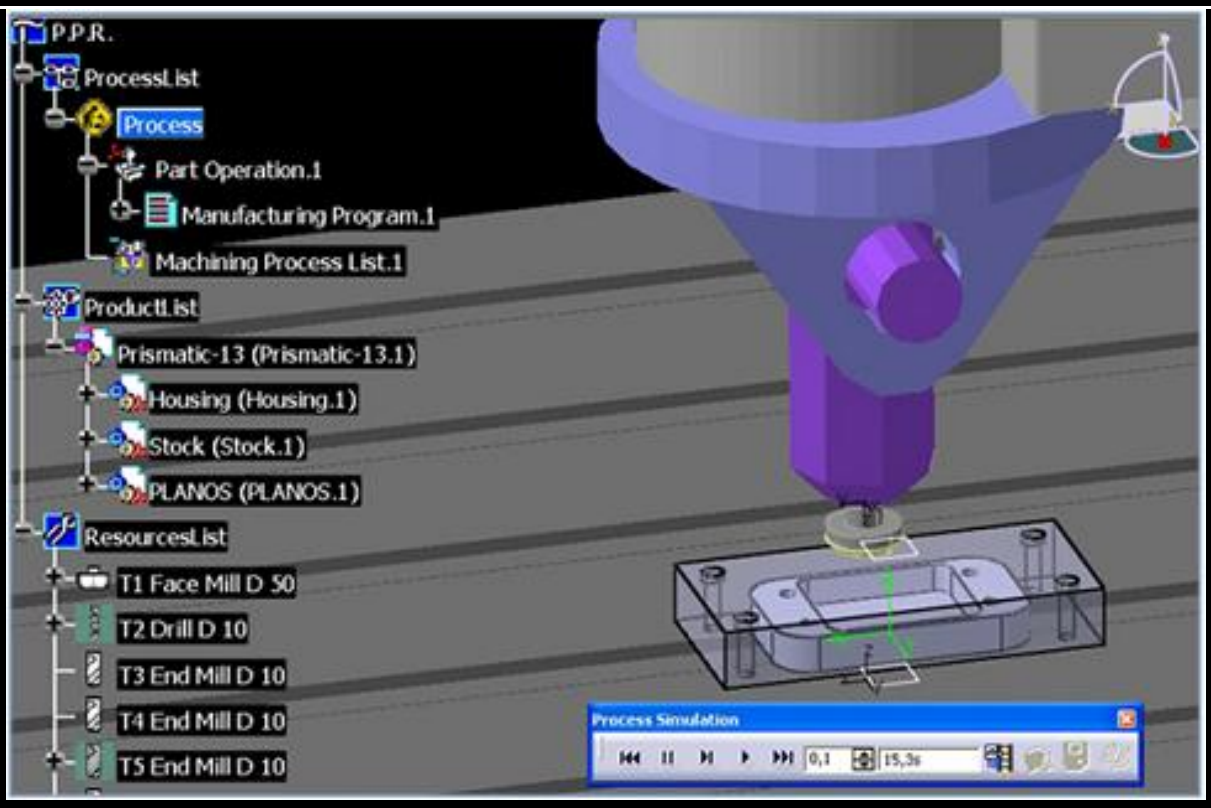
```
;=====================================================
;===   cPost Standard PP for SINUMERIK 840 D        ===
;=====================================================
N10 G0 G90 G40
N20 G40 M8
N30 G17
N40 ;=============== TOOL CHANGE ================
N50 ; DESC :
N60 ;============================================
N70 T1 M06
N80 D1
N90 G0 G90 G40 G17
N100  F0 S0
N110 G64 SOFT
N120 S70 M3
N130 G1 X111.892 Y0 Z-5 F300 G94
N140 Z-6
N150 X0 F1000
N160 Y120
N170 X230
N180 Y0
N190 X111.892
N200 Y12.5
N210 Y25
N220 X25
N230 Y95
N240 X205
N250 Y25
N260 X111.892
```

El archivo CATNCCode es el que interesa para enviar a la Máquina de control numérico, y se debe abrir y en algunos casos miodificar para adaptarlo a las diferentes Máquinas, según las especificaciones de estas.

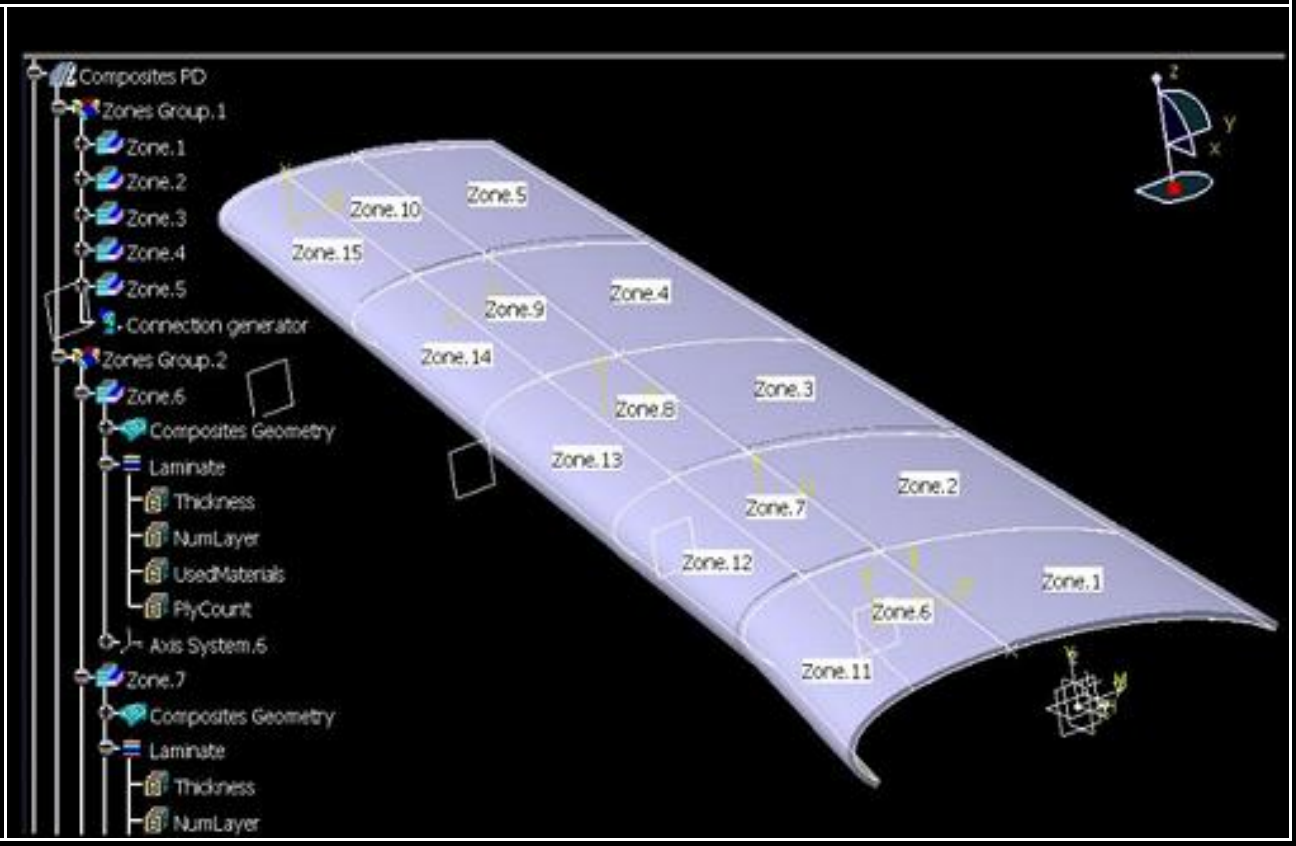


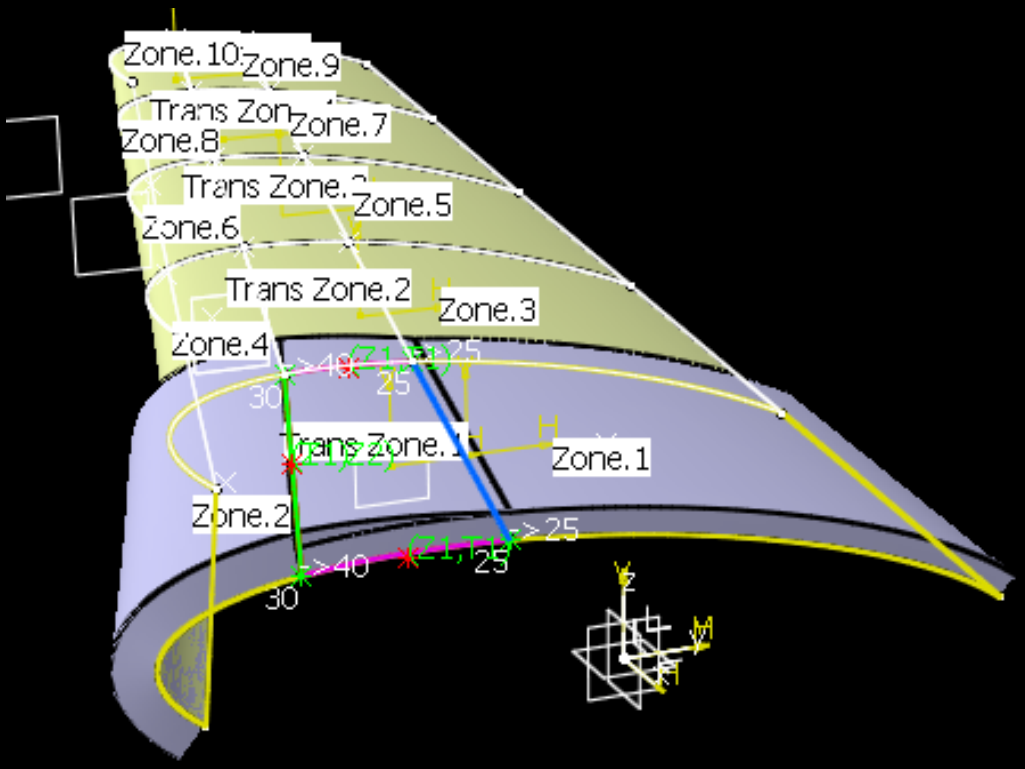
Simulación de Mecanizado con Fresadora

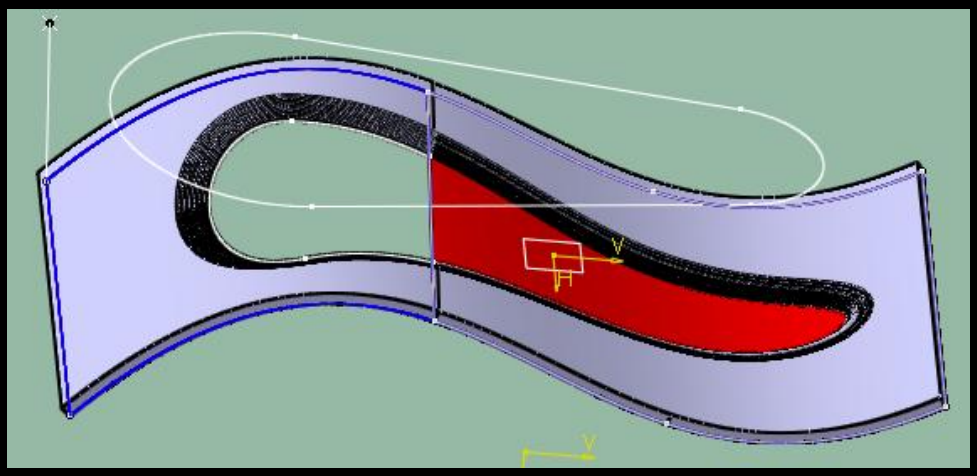


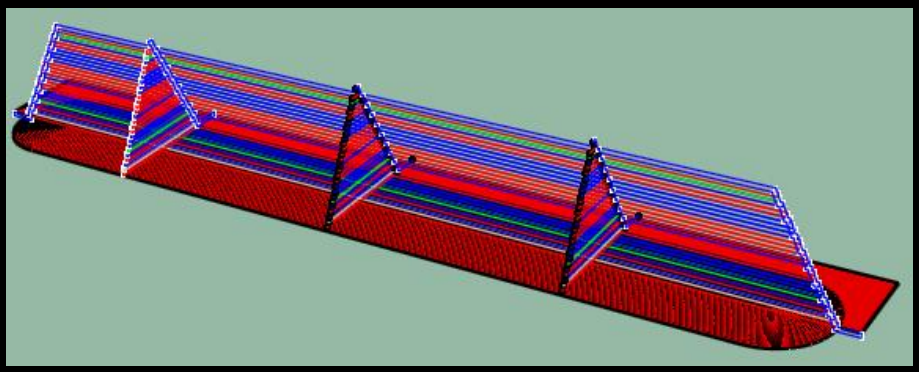

P.P.R.
ProcessList
Process
Part Operation.1
Manufacturing Program.1
Machining Process List.1
ProductList
Prismatic-13 (Prismatic-13.1)
Housing (Housing.1)
Stock (Stock.1)
PLANOS (PLANOS.1)
ResourcesList
T1 Face Mill D 50
T2 Drill D 10
T3 End Mill D 10
T4 End Mill D 10
T5 End Mill D 10
Process Simulation

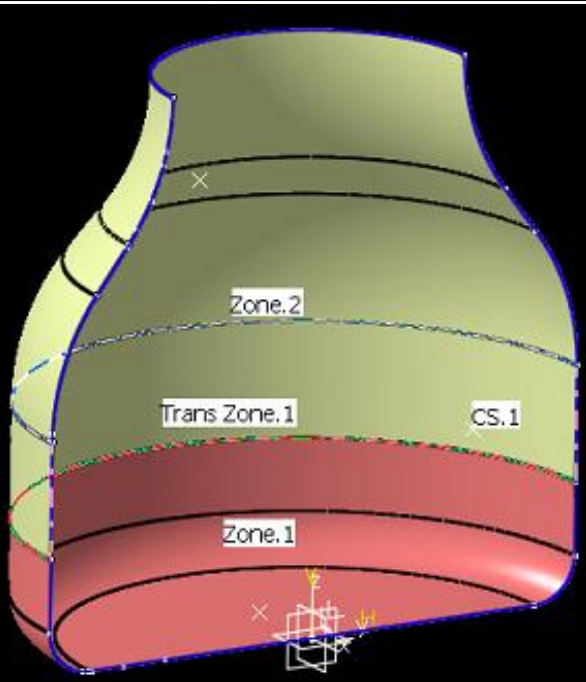
COMPOSITES

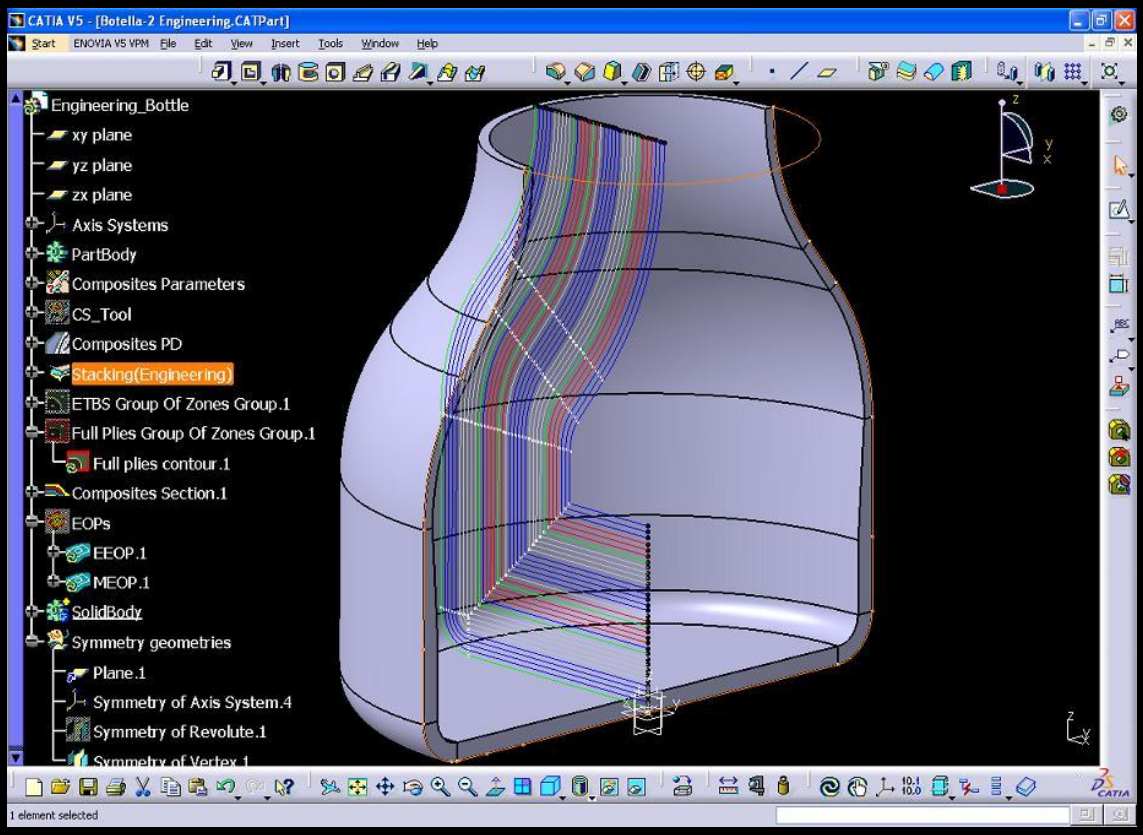

Composites PD
Zones Group.1
Zone.1
Zone.2
Zone.3
Zone.4
Zone.5
Connection generator
Zones Group.2
Zone.6
Composites Geometry
Laminate
Thickness
NumLayer
UsedMaterials
PlyCount
Axis System.6
Zone.7
Composites Geometry
Laminate
Thickness
NumLayer
Zone.10
Zone.5
Zone.15
Zone.4
Zone.9
Zone.14
Zone.3
Zone.8
Zone.13
Zone.2
Zone.7
Zone.12
Zone.1
Zone.6
Zone.11


Zone.10
Zone.9
Trans Zone
Zone.8
Zone.7
Trans Zone.
Zone.6
Zone.5
Trans Zone.2
Zone.4
Zone.3
Trans Zone.1
Zone.1
Zone.2
30
25
40
25

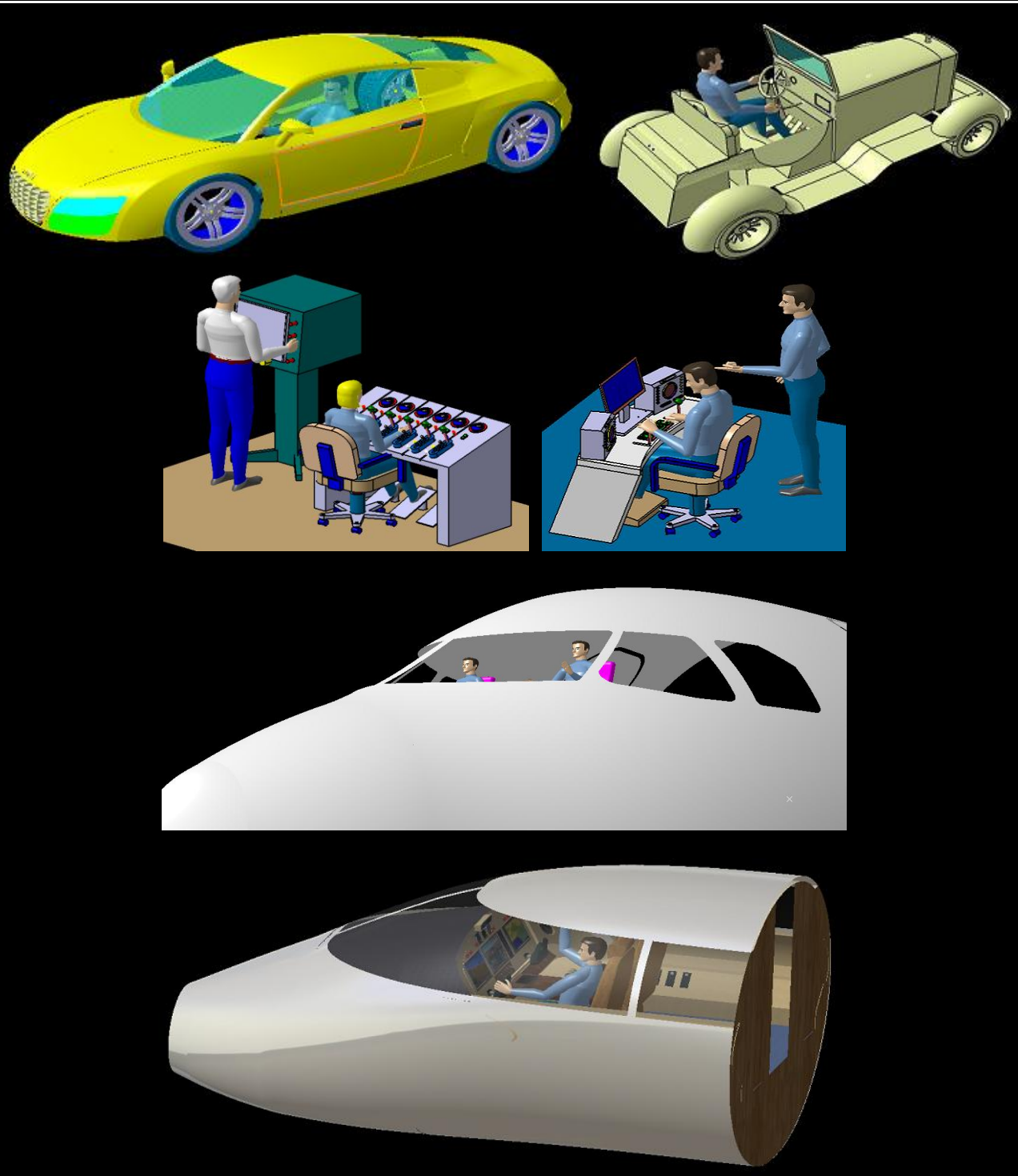





Zone.2
Trans Zone.1
CS.1
Zone.1


CATIA V5 - [Botella-2 Engineering.CATPart]
Start
ENOVIA V5 VPM
File
Edit
View
Insert
Tools
Window
Help
Engineering_Bottle
xy plane
yz plane
zx plane
Axis Systems
PartBody
Composites Parameters
CS_Tool
Composites PD
Stacking(Engineering)
ETBS Group Of Zones Group.1
Full Plies Group Of Zones Group.1
Full plies contour.1
Composites Section.1
EOPs
EEOP.1
MEOP.1
SolidBody
Symmetry geometries
Plane.1
Symmetry of Axis System.4
Symmetry of Revolute.1
Symmetry of Vertex.1
1 element selected

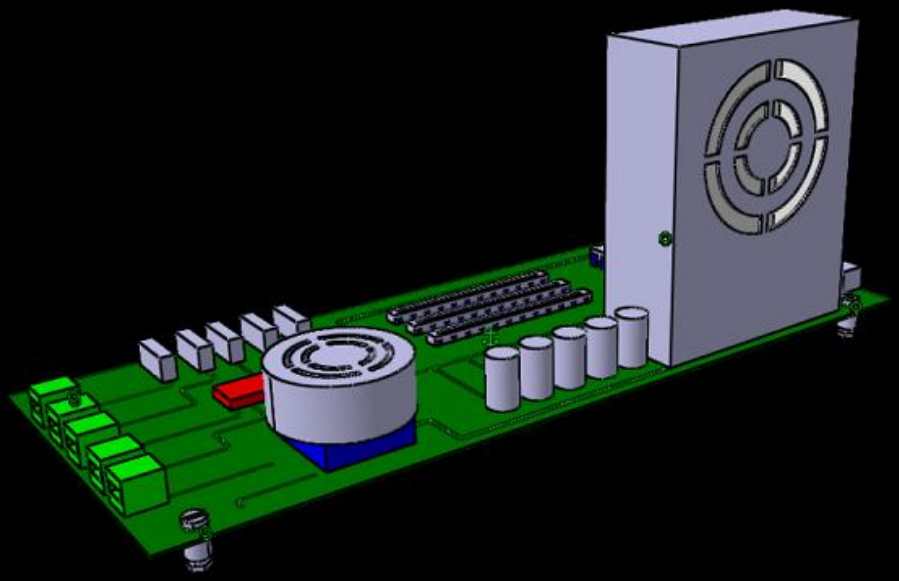
ERGONOMICS

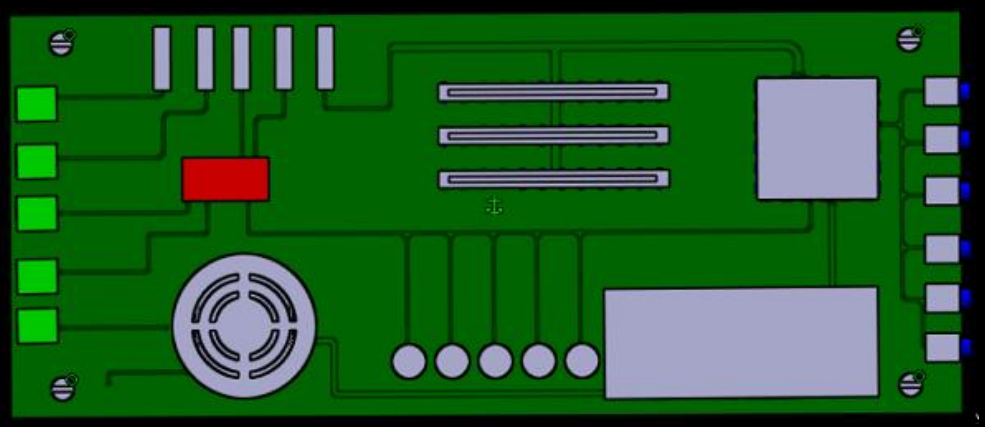


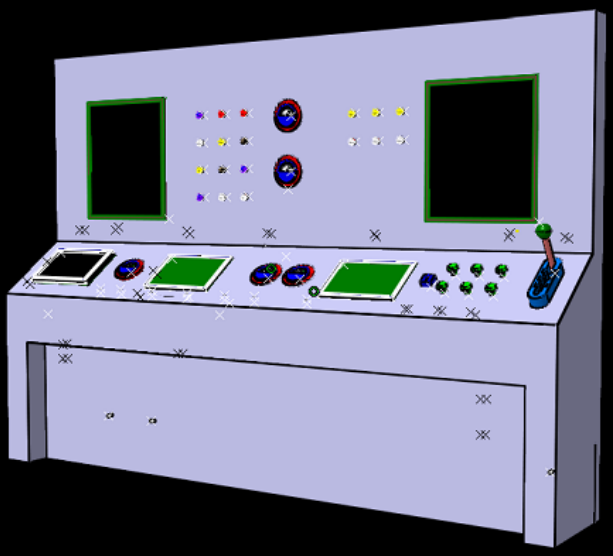
Electrical Circuit Design

Electrical Harness Instalation

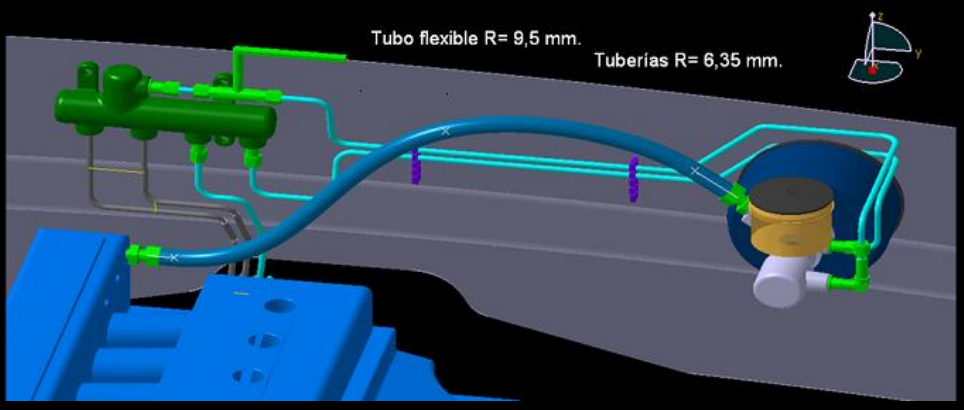
Electrical Harness Assembly

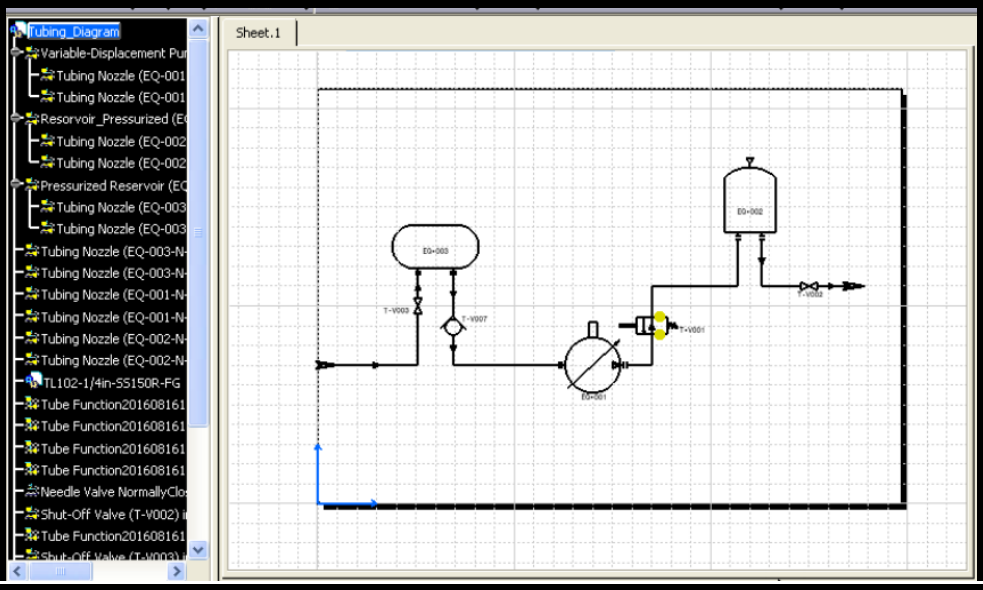




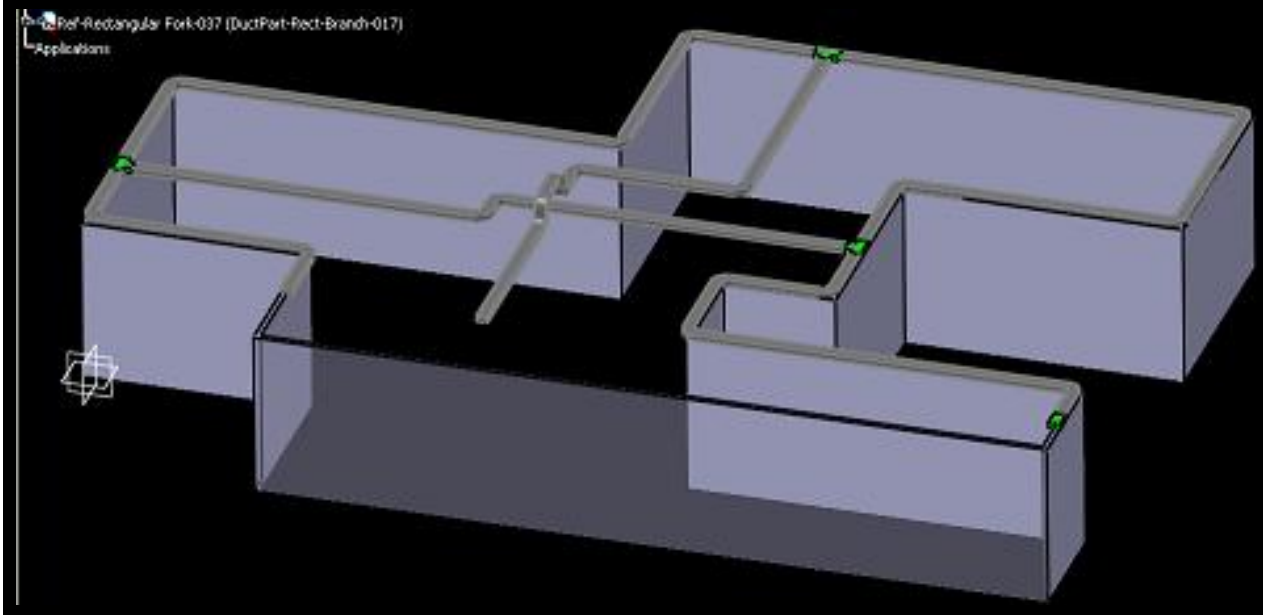


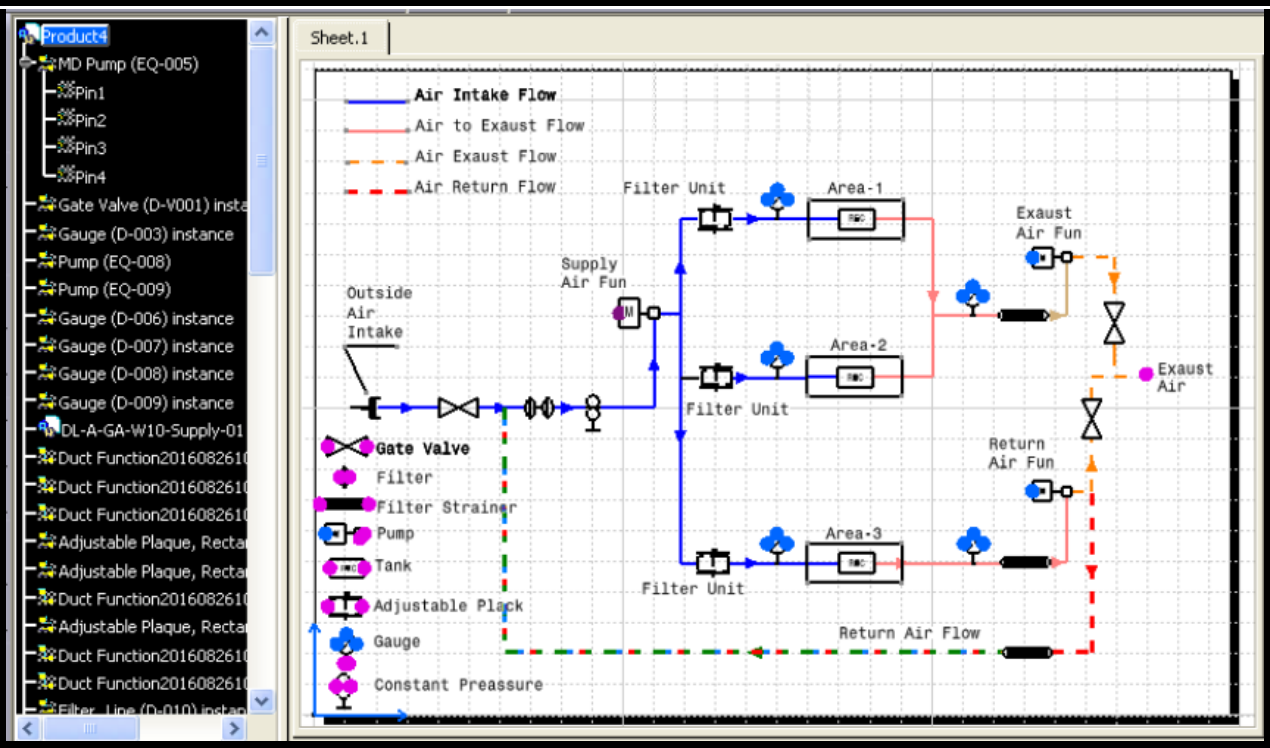
Piping – Tubing



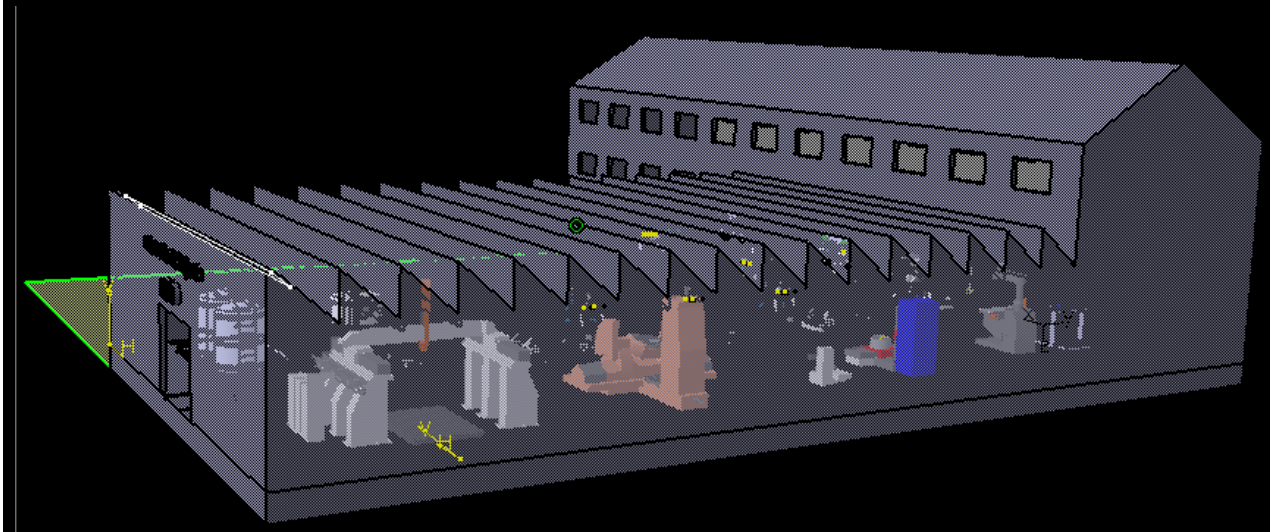


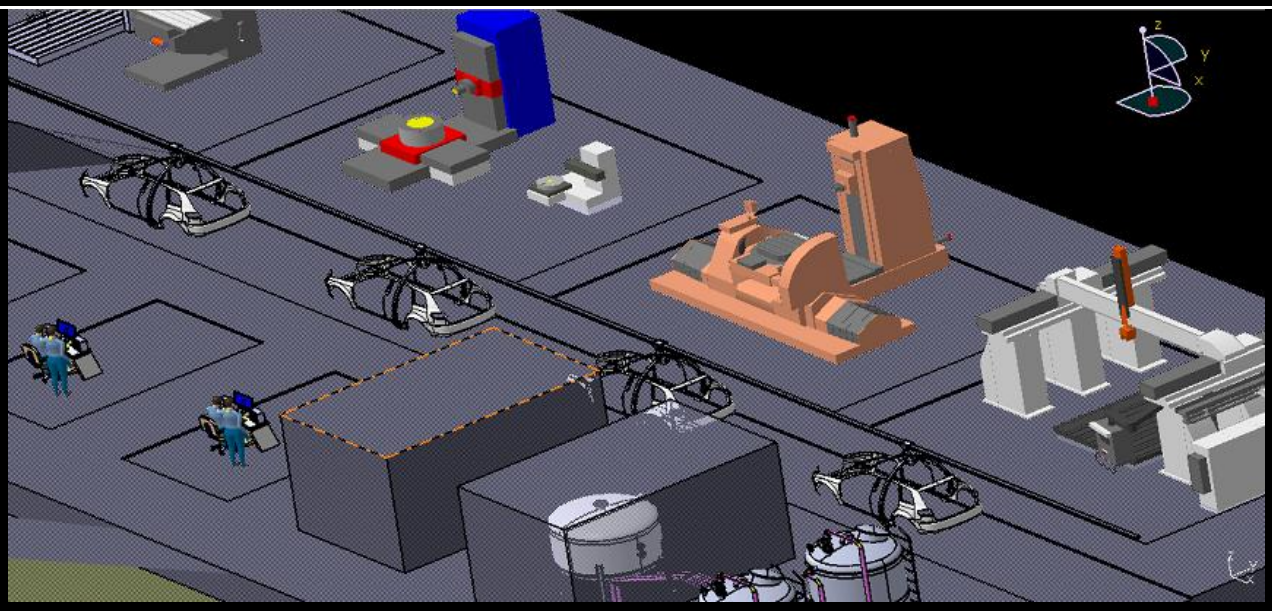
HVAC



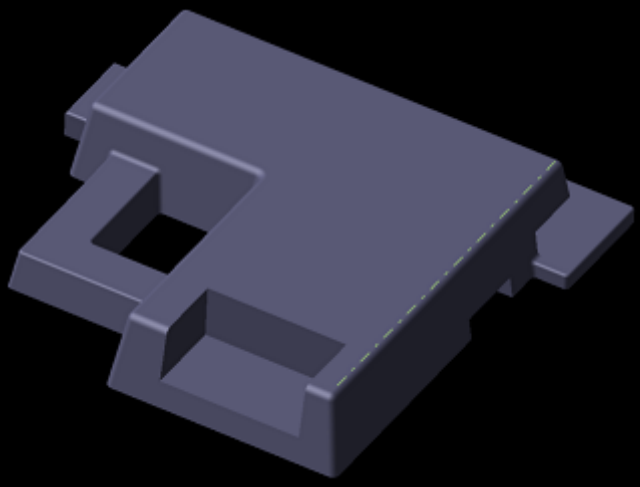

Product4
MD Pump (EQ-005)
Pin1
Pin2
Pin3
Pin4
Gate Valve (D-V001) inste
Gauge (D-003) instance
Pump (EQ-008)
Pump (EQ-009)
Gauge (D-006) instance
Gauge (D-007) instance
Gauge (D-008) instance
Gauge (D-009) instance
DL-A-GA-W10-Supply-01
Duct Function2016082610
Duct Function2016082610
Duct Function2016082610
Adjustable Plaque, Recta
Adjustable Plaque, Recta
Duct Function2016082610
Adjustable Plaque, Recta
Duct Function2016082610
Duct Function2016082610
Sheet.1
Air Intake Flow
Air to Exaust Flow
Air Exaust Flow
Air Return Flow
Filter Unit
Area-1
Exaust Air Fun
Supply Air Fun
Outside Air Intake
Area-2
Exaust Air
Filter Unit
Return Air Fun
Gate Valve
Filter
Filter Strainer
Pump
Tank
Adjustable Plack
Gauge
Constant Preassure
Area-3
Filter Unit
Return Air Flow

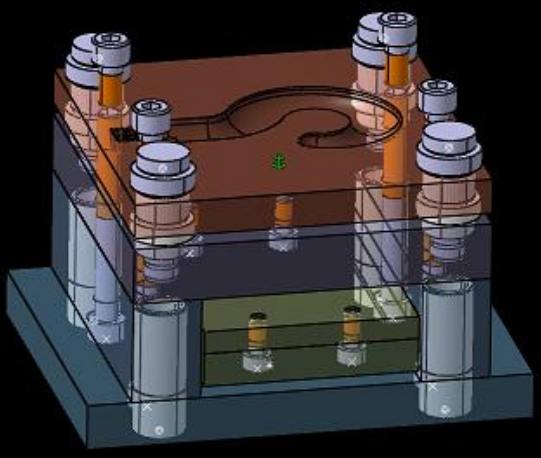
AEC Plant



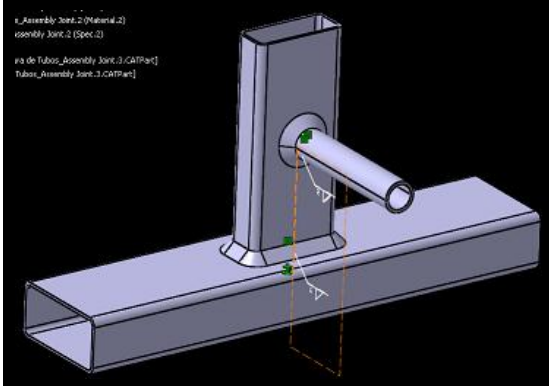


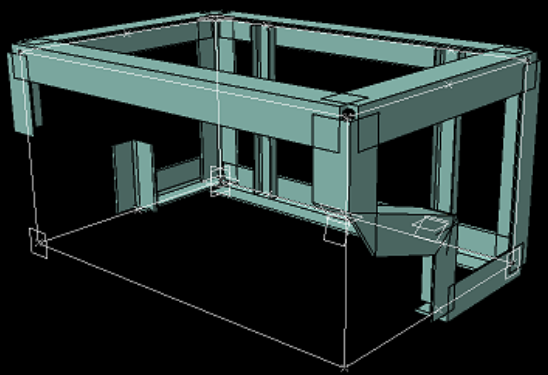
Molding

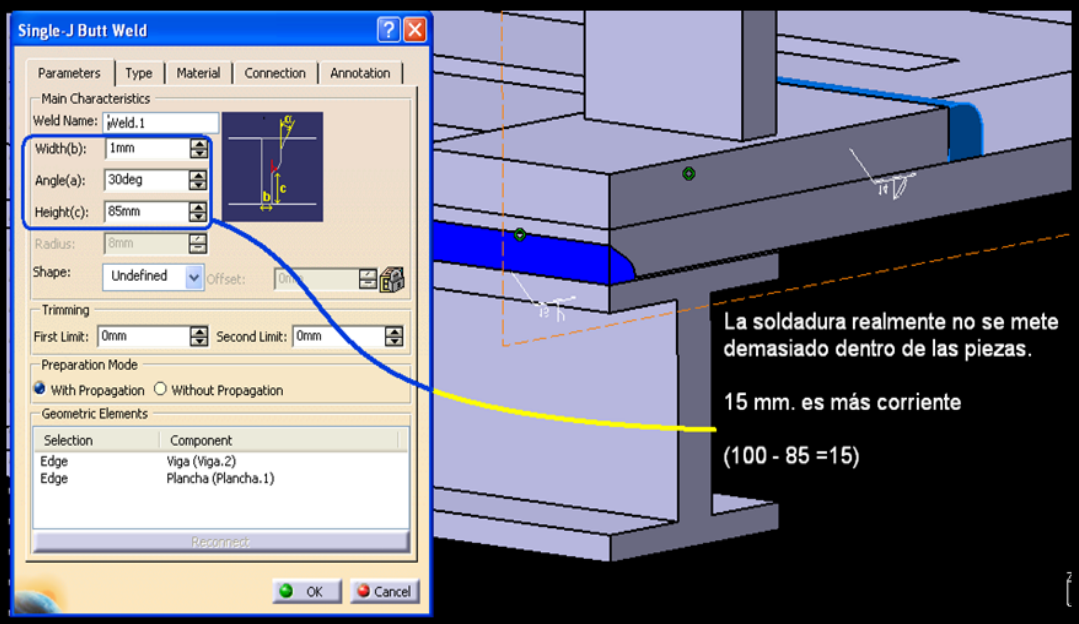




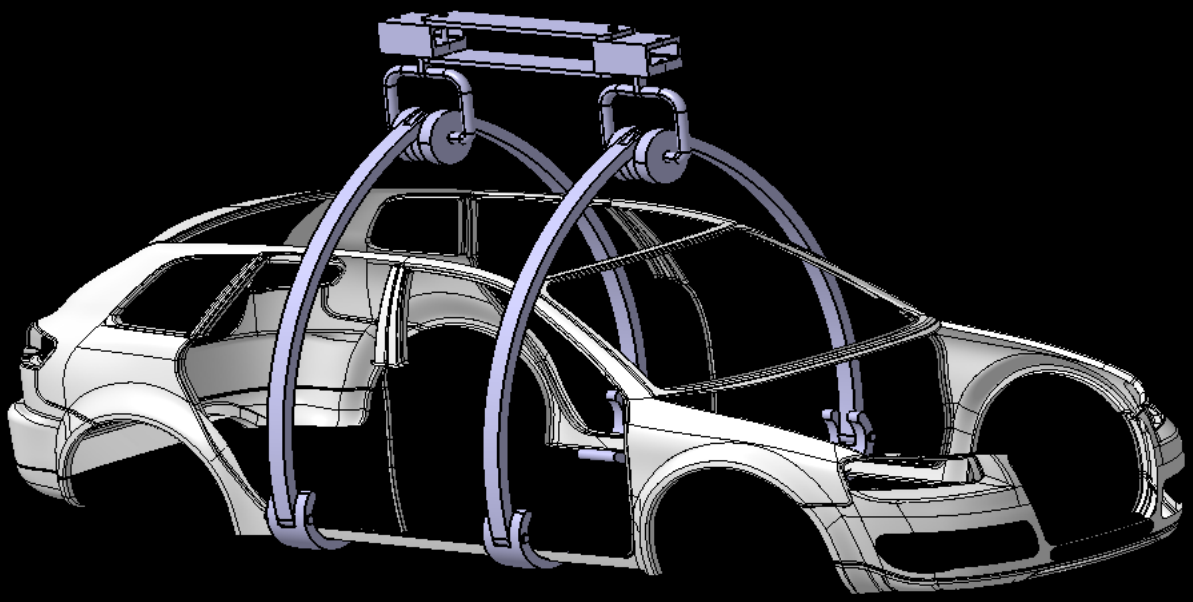
Weld Design -- Structure







Utillaje de Montaje



Scanner 3D

123 Catch crear objetos editables desde Fotos de un objeto real

Actualización a CATIA V6

Esto son solo algunos de los ejercicios del Master y Cursos de CATIA de CPS