
LESSON I FUNDAMENTALS FOR CAD/CAM/CAE SYSTEM

LECTURE I

IDE3301CAID

DR. PALANG WONGTANASUPORN

FUNDAMENTALS FOR CAD/CAM/CAE SYSTEM

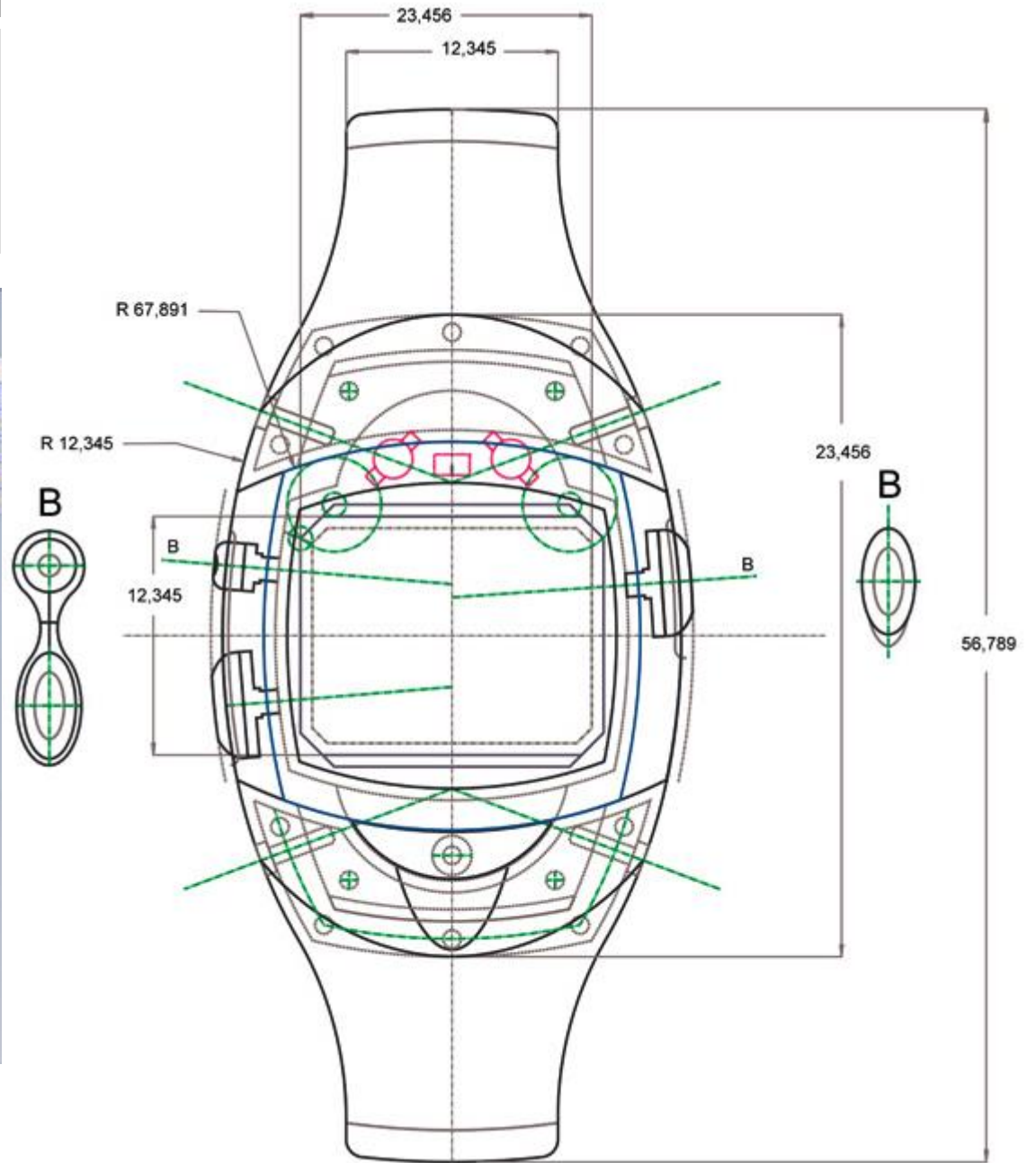
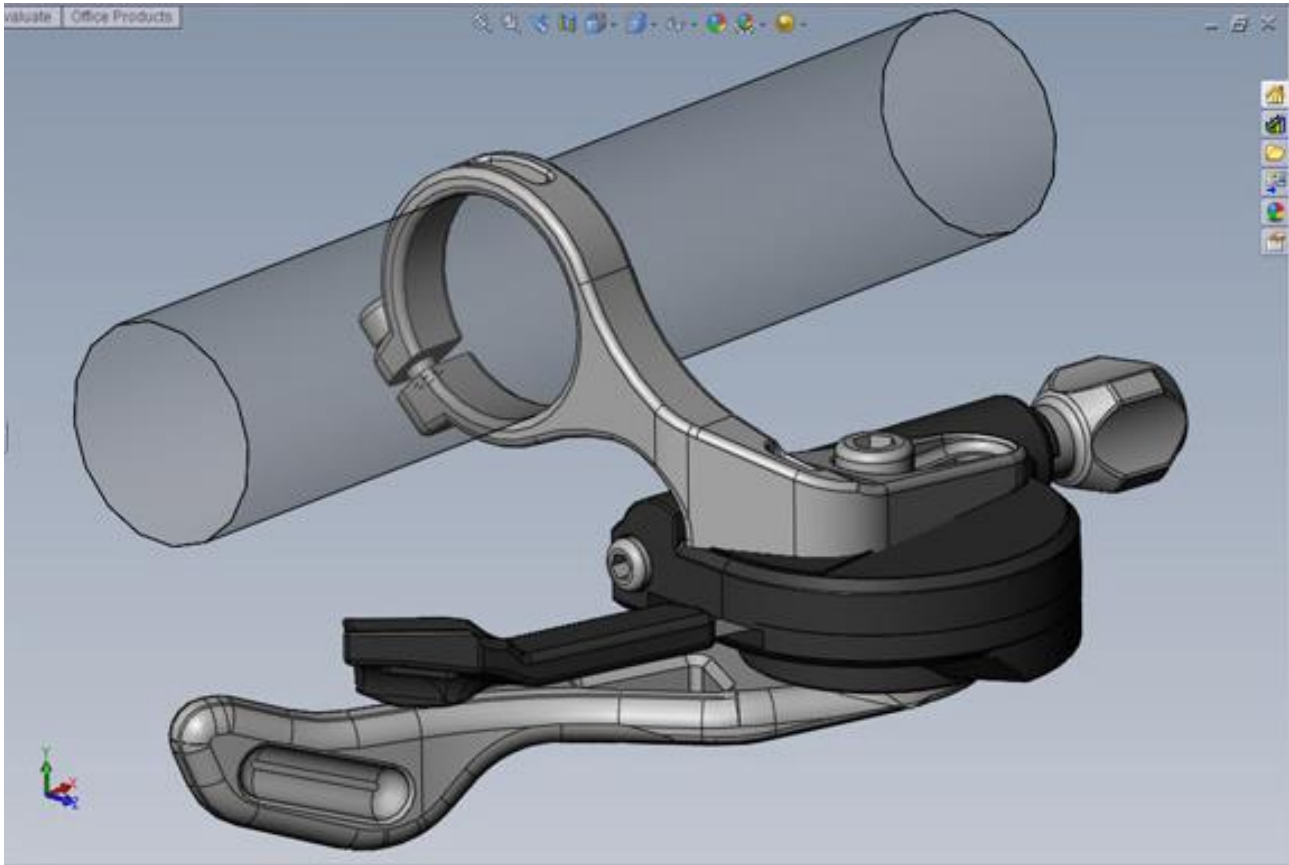


GROUP OF TECHNOLOGY

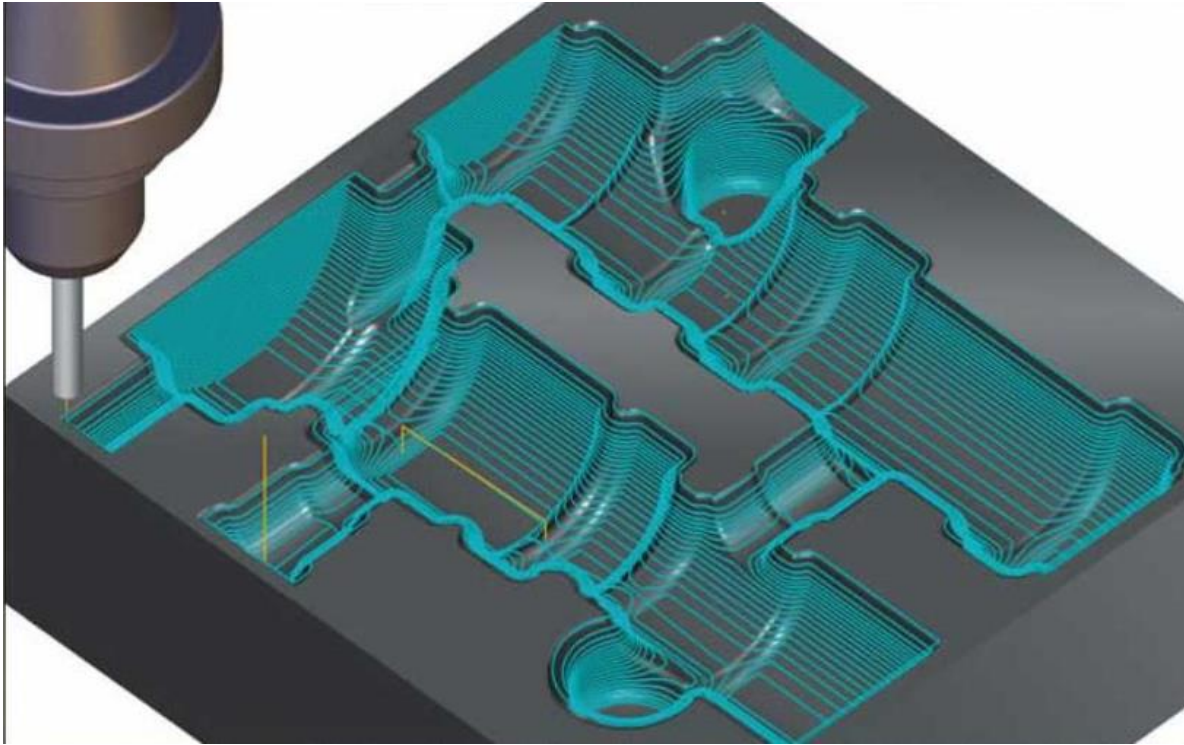
- **CAD** <http://www.youtube.com/watch?v=mldR6ygvCug&list=PLru2OQ6BLajwGdeYuxjgqTo-Jy8CCtbd>
- **CAM** <http://www.youtube.com/watch?v=wxRg7d8WhcQ>
- **CAE** <http://www.autodesk.com/suites/product-design-suite/overview>
- **CAID** <http://www.youtube.com/watch?v=V0wF1GDgLI4>

CAD = COMPUTER AIDED DESIGN

<http://www.youtube.com/watch?v=t3s9496aylg>

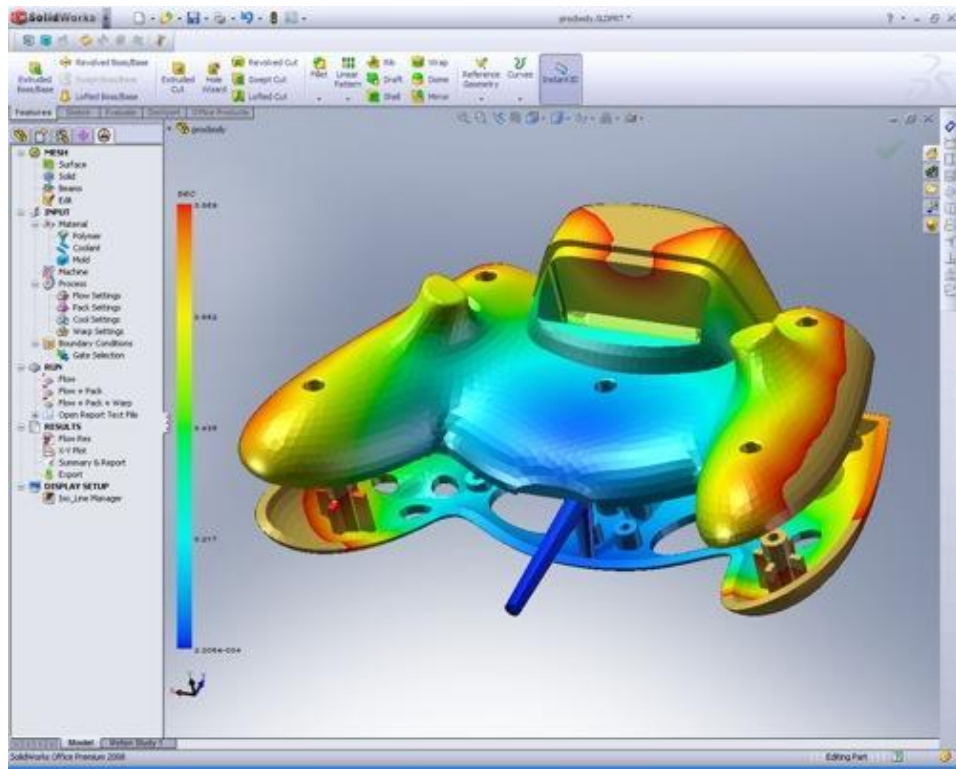


CAM = COMPUTER AIDED MANUFACTURING



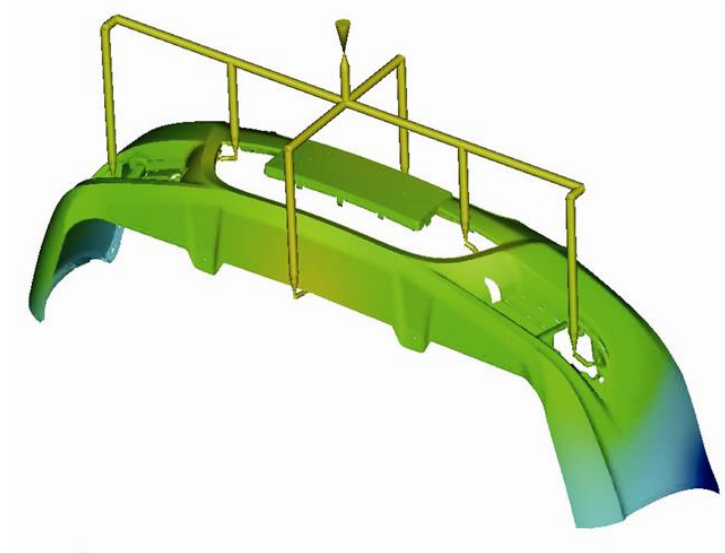
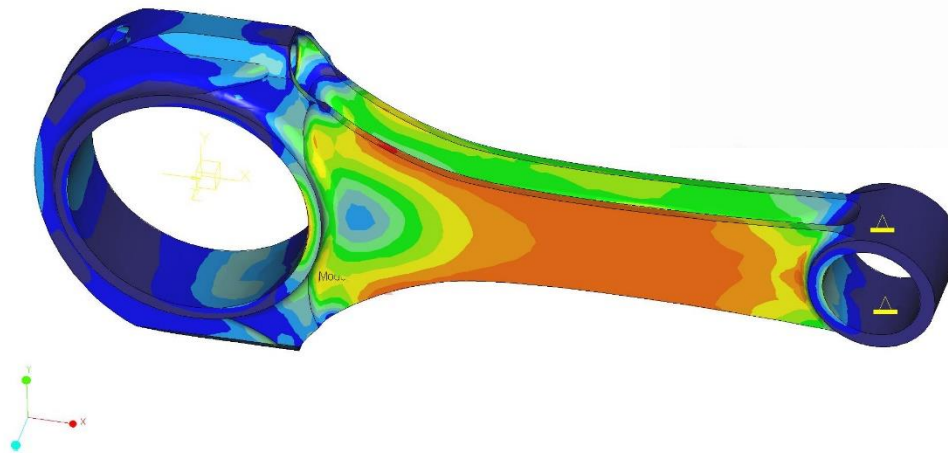
<http://www.youtube.com/watch?v=85vPMrx8OYE>

CAE = COMPUTER ADDED ENGINEERING



<http://www.youtube.com/watch?v=tj65wL0x8xs>

Stress von Mises (WCS)
(lbf / in²)
Loadset: LoadSell



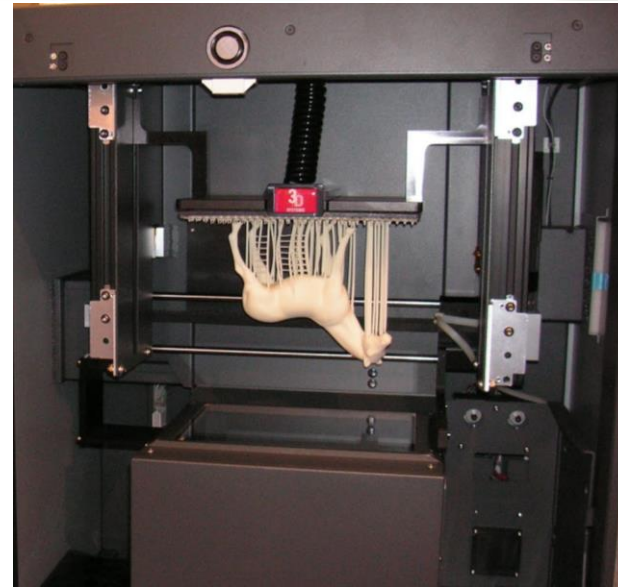
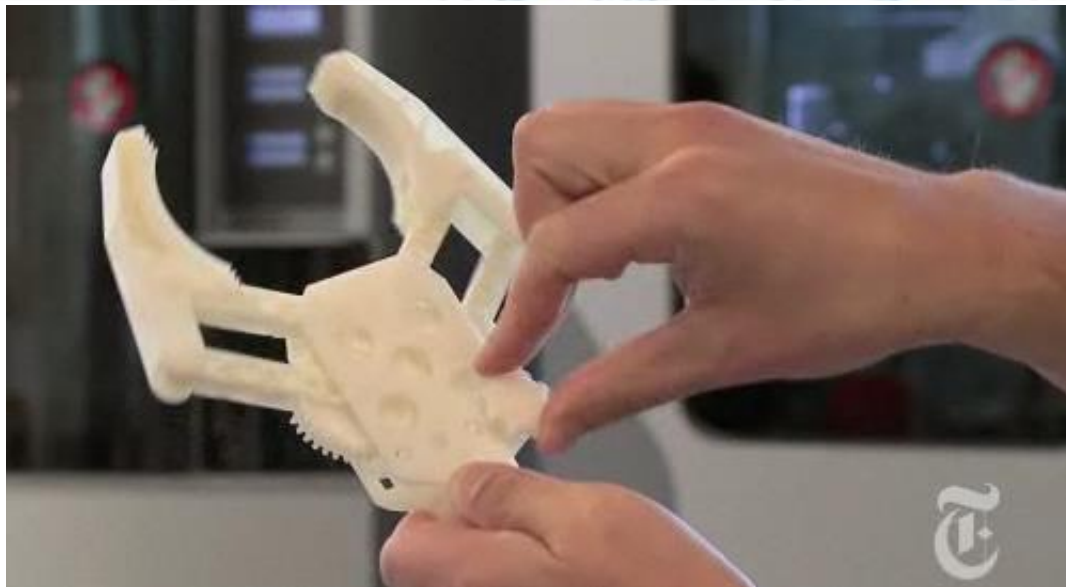
444-0361-D

CAID = COMPUTER AIDED INDUSTRIAL DESIGN

<http://www.youtube.com/watch?v=wKFHW4TluI0>



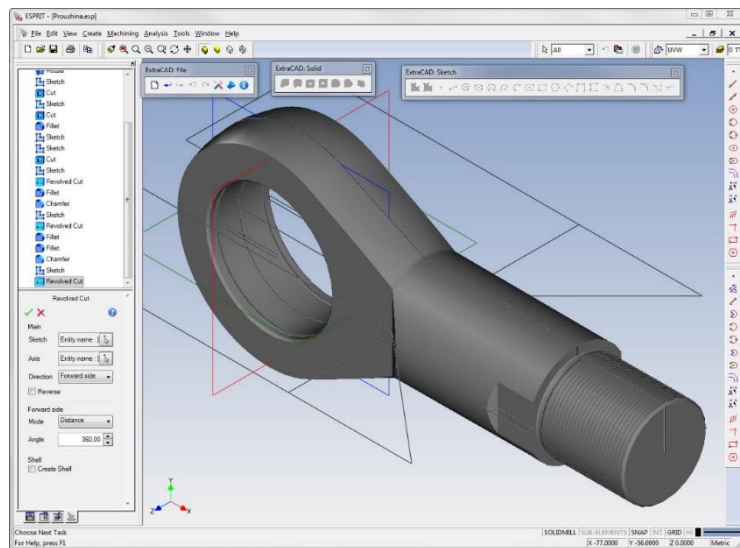
<http://www.youtube.com/watch?v=p-DN9XGJZkk>



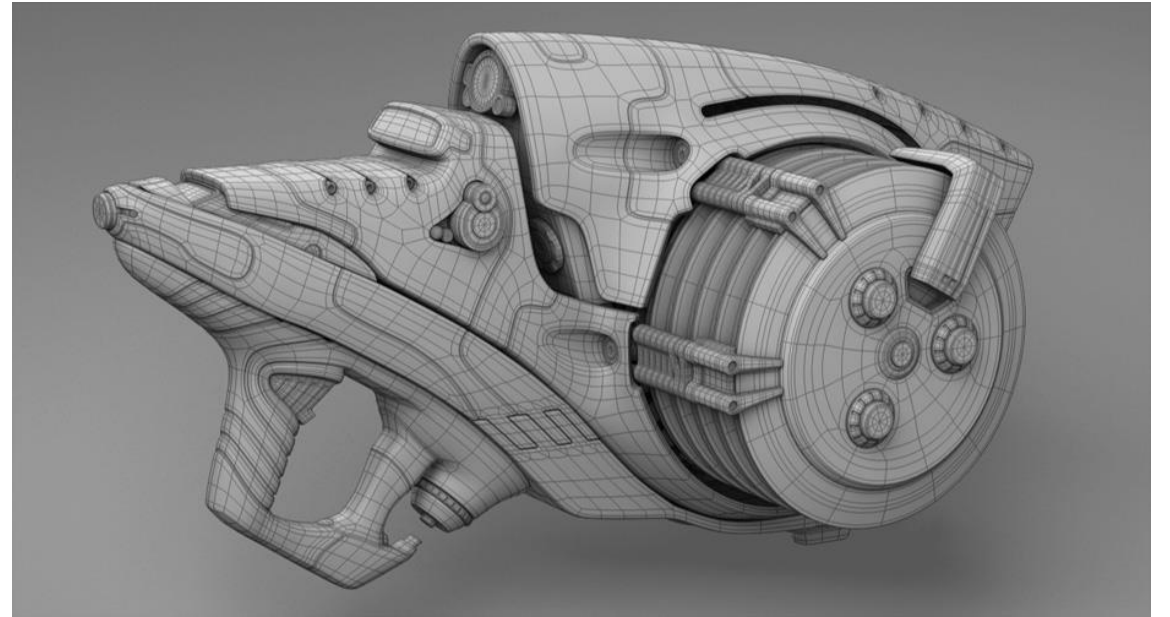
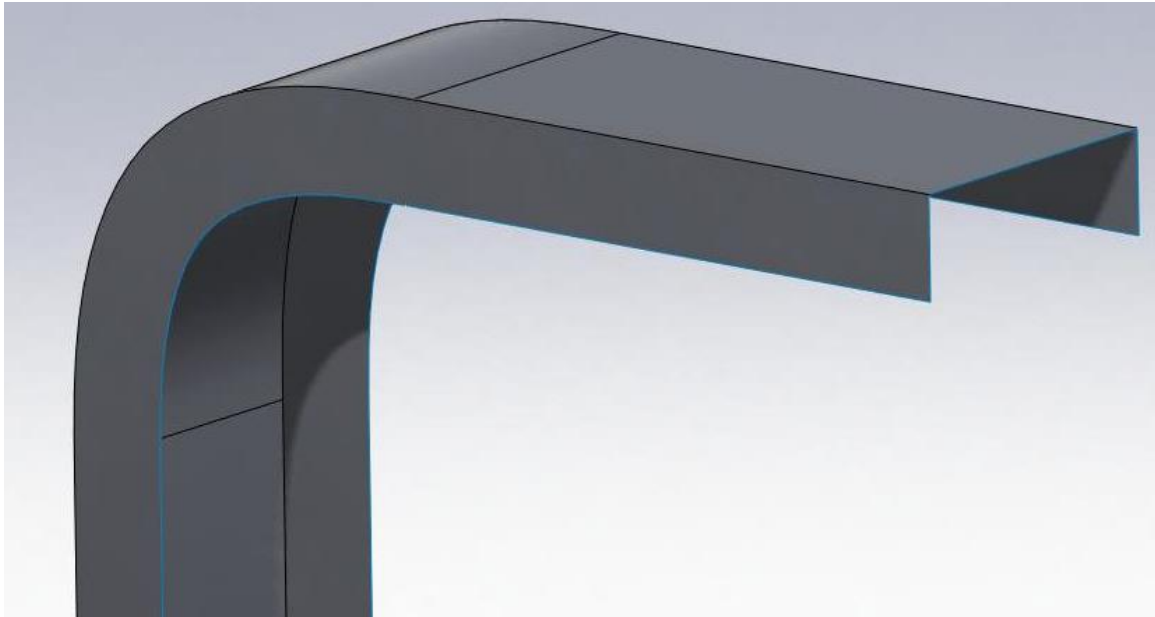
TYPE OF MODELING

1. Parametric **SOLID** Modeling
2. Nurb **SURFACE** modeling

PARAMETRIC SOLID MODELING



NURB SURFACE MODELING

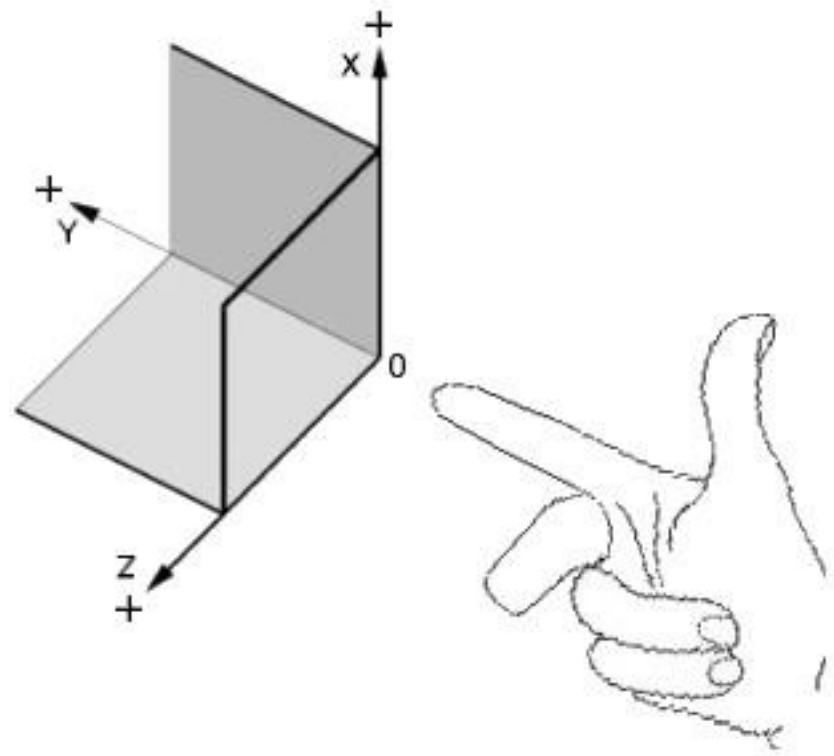


CAD BACKGROUND KNOWLEDGE

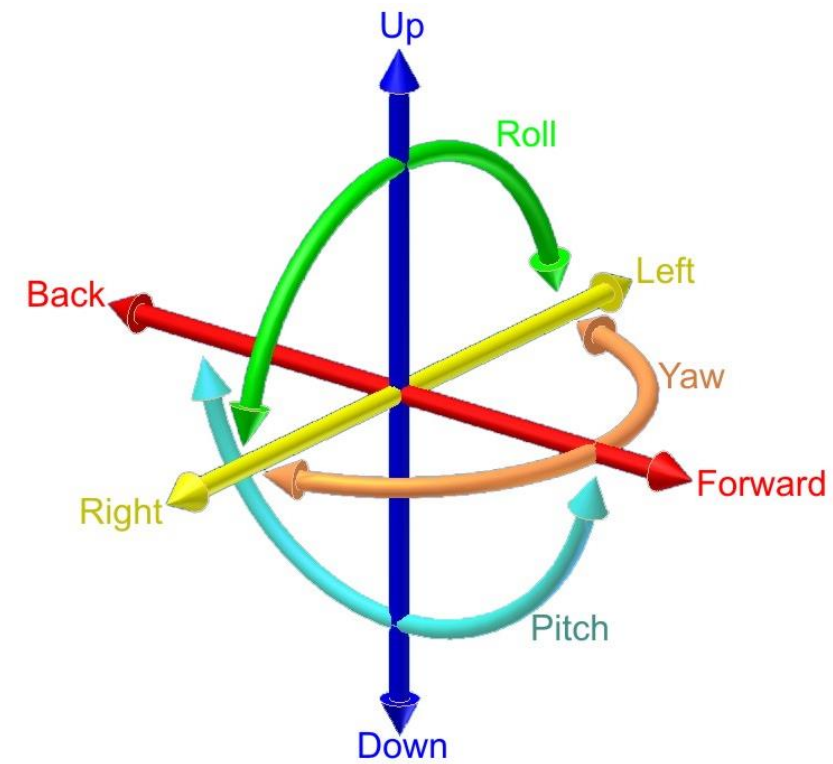
1. COORDINATE SYSTEM
2. DOF = DEGREE OF FREEDOM
3. PLANE
4. FACE
5. AXIS
6. PIVOT

POSITIONING AND MOVEMENT

Coordinate system

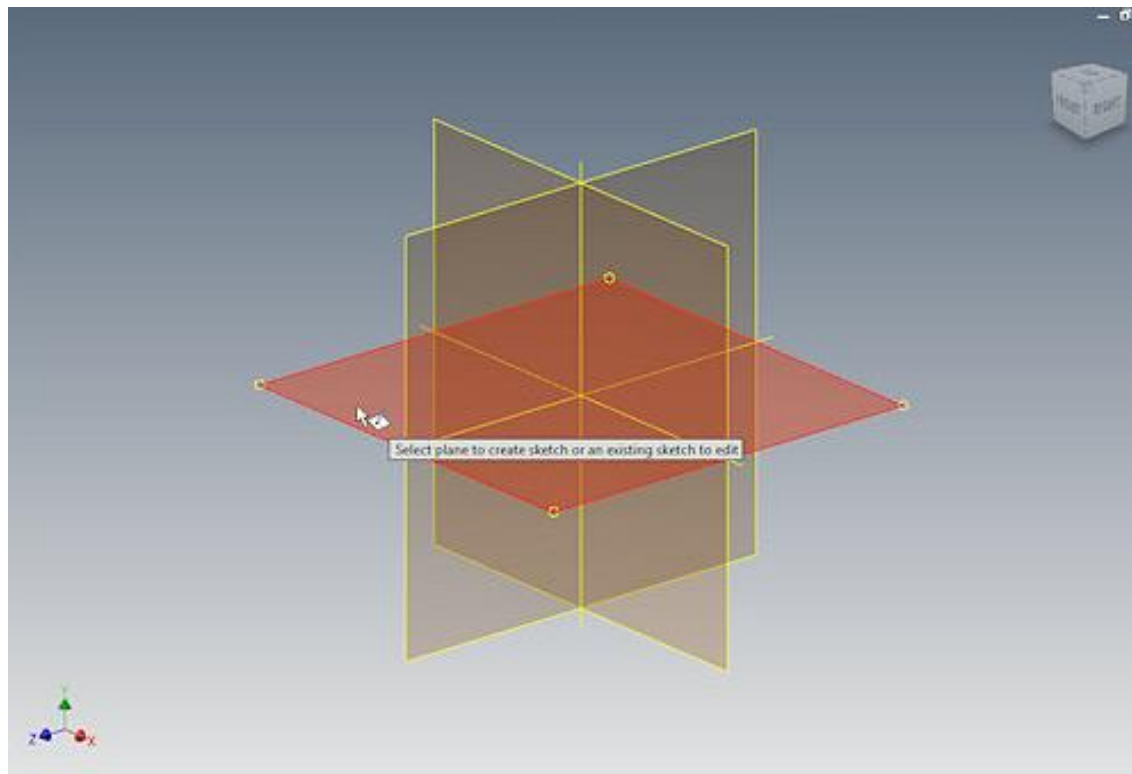


DOF = Degree of Freedom



DRAWING SPACE

Working plane



face

