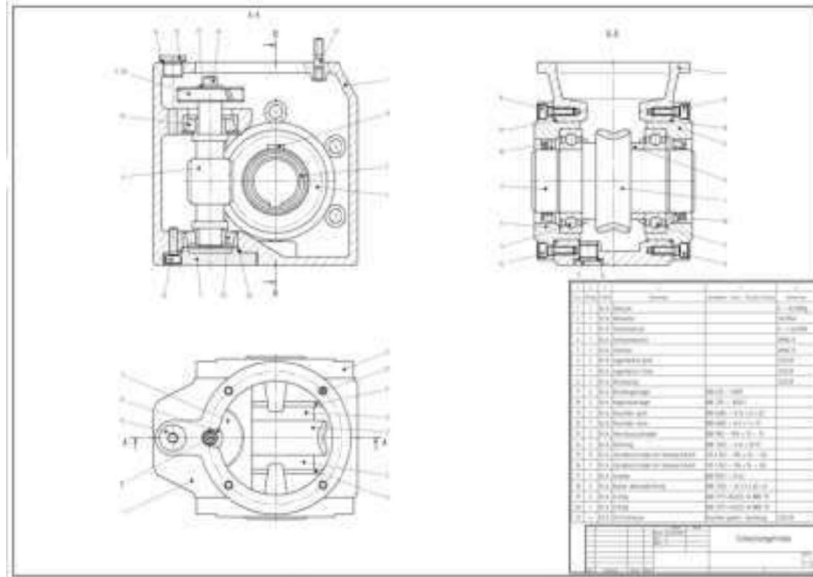
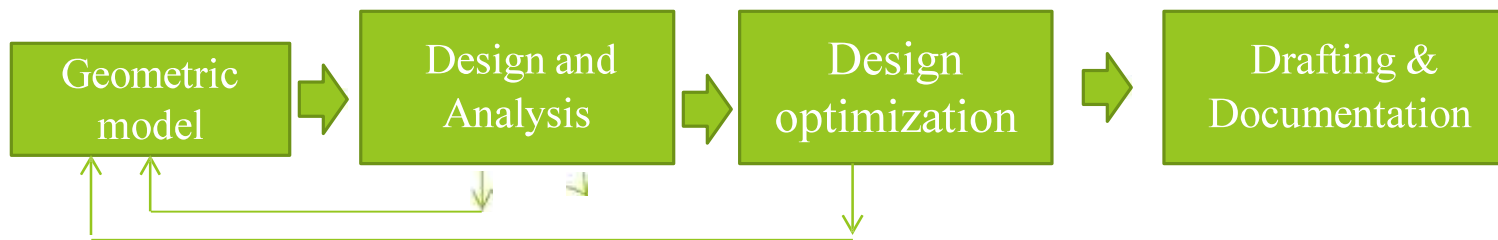




What is CAD ?



- Computer-Aided Design (CAD) is the technology concerned with the use of computer systems to assist in the creation, modification, analysis, and optimization of a design. [Groover and Zimmers, 1984]



2D CAD drawing



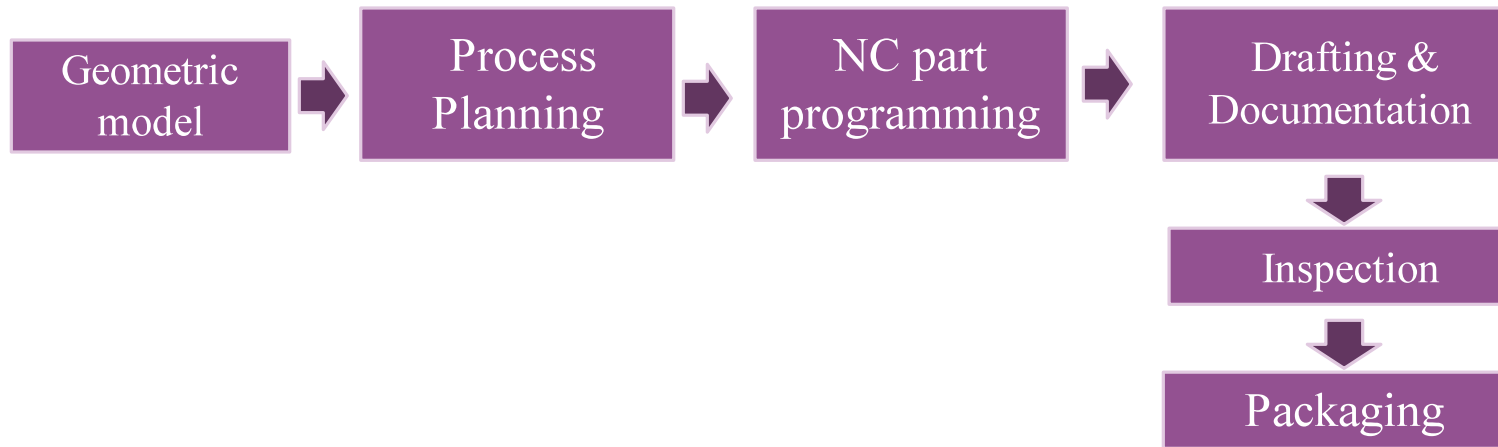
3D CAD model



Different terminology related CAD

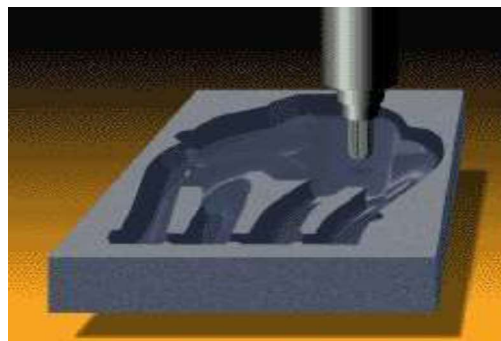


- **Computer-Aided Manufacturing (CAM)** is the technology concerned with the use of computer systems to plan, manage, inspect and control manufacturing operations directly or indirectly.

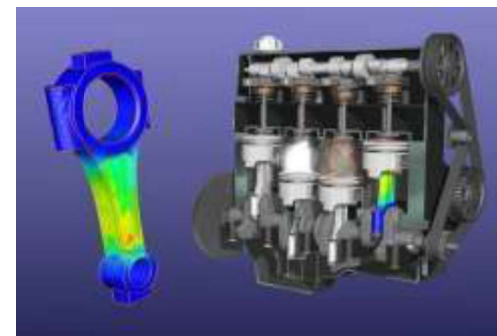


Phase of CAD

- **Computer-Aided Engineering (CAE)** is the technology concerned with the use of computer systems to analyze CAD geometry, allowing the designer to simulate and study how the product will behave.



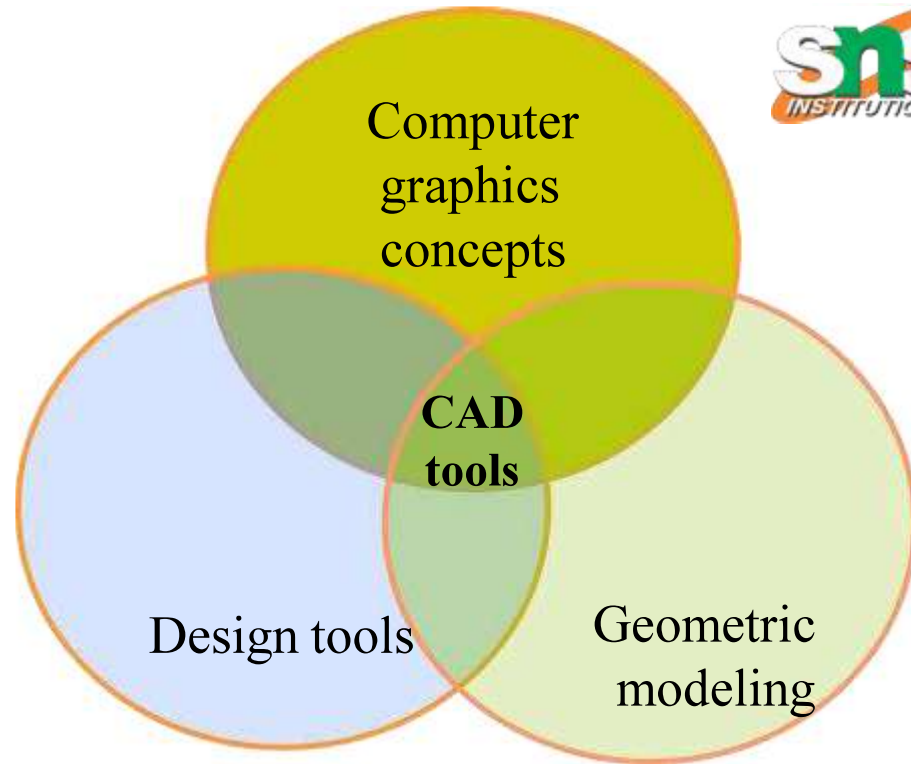
CAM



CAE



CAD tools



Difference b/w CADr and CAD

Computer Aided Drafting	Computer Aided Design/Modeling
1. This is done after analysis is performed on the geometric model	1. This is done before analysis is performed on the geometric model
2. The dimension shown in computer aided drafting are safe, since these are drawn after analysis	2. This provides the dimensions which may or may be safe
3. This is generally a 2D Drawing	3. This is 2D drawing or 3D model
4. These are made basically for conveying the production design.	4. The model is used for design analysis
5. This is drawn with reference from the model already created	5. Model is actually developed from scratch with different approximations

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