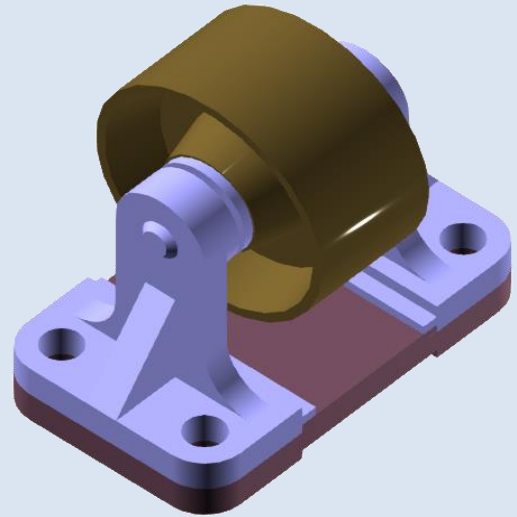


# CollabCAD

## Collaborative 3D CAD, 2D Drawing and PLM software *An Indigenous solution*

**CollabCAD** is a collaborative network enabled and desktop CAD software system, which provides a total engineering solution from 3D Product Part/Assembly Design, 2D Drafting and Detailing, Scripting, Import/Export of CAD Data, Numerical Control, Visualization to Content Management, Workflow and Office Automation.

CollabCAD runs on Linux and Windows systems and is available in both Stand Alone & Client-Server mode. The collaborative mode of CollabCAD enables multiple designers to create and modify data across a network and concurrently access the same design data for visualization.



### Advantages

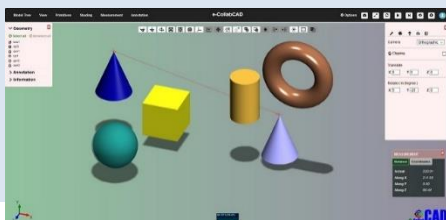
- ✓ Economical and Indigenous CAD Solutions
- ✓ Collaborative & Comprehensive
- ✓ Parametric Sketcher with Constraints/DoF
- ✓ Hybrid Solid Modelling
- ✓ Assembly Design with Constraints
- ✓ Plot Configurator for Drawing Views & BOM
- ✓ Programmable Scripting Interface
- ✓ Customizable User Interface
- ✓ Standard Open CAD Exchange Formats

### Collaborative Design

- Facilitates Rapid Product Visualization
- Drastically cuts down the time for
  - ❖ Requirement Specification
  - ❖ Modelling
  - ❖ Review and Analysis
- Dynamic Sharing of 3D Designs across the Network and using VPN
- Concurrently access the same Design for Viewing and Modification

### e-CollabCAD Web 3D Viewer

- Online portal for 3D CAD and Mesh data
- Upload of STL, OBJ, VRML, DAE, JSON data
- WebGL browser compliant 3D Viewer



### For further details Contact:

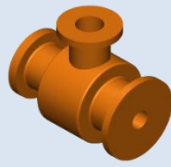
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<https://collabcad.gov.in>

## Part Design



- ✓ Create, Edit and Modify in Virtual 3D Space
- ✓ 2D and 3D Curves
- ✓ 2D Parametric Sketch Profile

## Data Exchange

- ✓ Import: IGES/STEP/STL/OBJ
- ✓ Export: IGES/STEP/VRML/STL/BREP/JSON

## Surface Modelling



- ✓ Creation and Modification of Primitives, B-Splines, Bezier's
- ✓ Pipe, Revolution, Extrusion, Ruled
- ✓ Surface Offsets, Trim, Fillets and Chamfers

## Standard Parts and Database Link

- ✓ 3D Component library framework
- ✓ Create and store standard Parts/Components

## Basic Numerical Control

- ✓ Lathe - Roughing, Contouring, Drilling, Threading
- ✓ 3-Axis Surface Milling
- ✓ Point - to - Point Milling

## Solid Modelling



- ✓ Creation and modification of Primitives
- ✓ Slab, Revolution, Sweep, Lofts, Drafts
- ✓ Boolean Operations, Patterns, Sections
- ✓ Shell, Blends, Fillets (Constant & Variable)
- ✓ Mass and Section property calculations

## Scripting and Customization

- ✓ Facilitates 3D Part Modelling using Scripting based on Jython interpreter
- ✓ XML based Configurable Menu Bar
- ✓ XML based Tool Palette for User Interface Customization

## Assembly Design



- ✓ Bottom-up Approach
- ✓ 3D Constraint Solver
- ✓ Insert, Edit and Update Component, Multi-Instances

## Visualization

- ✓ Wireframe, Facet with edges display, Transparency, Shading Quality control
- ✓ Hidden line removal including back edges
- ✓ Zebra Stripes based mapping
- ✓ Ambient, Directional, Point Lights

## Plot Configurator - 2D Drafting and Detailing and Annotations

- ✓ Generate Drawing Views and Layout
- ✓ First and Third Angle Projection
- ✓ Detailed and Section Views
- ✓ Linear (Chain, Stack, Co-ordinate, Cumulative), Radial, Diameter, Thickness, Angular, Arc Length
- ✓ Annotations including manufacturing symbols
- ✓ Export PDF, JPG, HPGL and Printer support

RAM	2 GB (Minimum)
Free Disk Space	1 GB (Basic) 2 GB (Advanced)
Virtual Memory	800 MB to 1 GB
Graphics Card	Open GL Supported Hardware Accelerated Graphics Adapter
System	Intel and AMD Based Systems
Operating System	Windows 10 and Linux

