

Introduction to Part Design Workbench

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

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Learning Objectives



Learning Objectives

We will learn to,

Learning Objectives

We will learn to,

► Draw basic shapes



Learning Objectives

We will learn to,

- ▶ **Draw basic shapes**
- ▶ **Use basic constrains**

Learning Objectives

We will learn to,

- ▶ Draw basic shapes
- ▶ Use basic constrains
- ▶ Draw the Flange Coupling component in 3D



System Requirements



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► Windows 11 OS

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- ▶ **FreeCAD v0.21.2**

Pre-requisites



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- **Learners must be familiar with the FreeCAD interface**

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- ▶ **Learners must be familiar with the FreeCAD interface**
- ▶ **For pre-requisite tutorials, please visit this site**

<https://spoken-tutorial.org>

Part Design Workbench



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Learn about Part design workbench



Part Design Workbench

Learn about Part design workbench

- **This workbench provides tools for creating 3 dimensional solid objects**

Part Design Workbench

Learn about Part design workbench

- ▶ **This workbench provides tools for creating 3 dimensional solid objects**
- ▶ **Using this workbench it is possible to design precise 3D mechanical parts**

Part Design Workbench

- The Part design is intrinsically related to the sketcher workbench

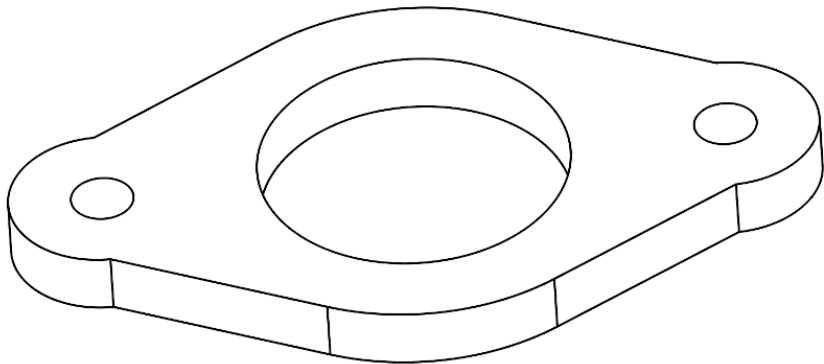
Part Design Workbench

- ▶ The Part design is intrinsically related to the sketcher workbench
- ▶ The sketcher workbench is used to create 2 dimensional geometries for use in Part design

Flange coupling



Flange coupling



Summary

We have learnt to,

- ▶ **Draw basic shapes**
- ▶ **Use basic constrains**
- ▶ **Draw the Flange Coupling component in 3D**

Assignment

- ▶ Practice to draw different shapes
- ▶ Practice pad and pocket tool

About the Spoken Tutorial Project

- ▶ Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project

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- ▶ If you do not have good bandwidth, you can download and watch it

Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to contact@spoken-tutorial.org



Forum questions

- ▶ Questions in THIS Spoken Tutorial?
- ▶ Visit <https://forums.spoken-tutorial.org>
- ▶ Choose the minute and second where you have the question
- ▶ Explain your question briefly
- ▶ The Spoken Tutorial project will ensure an answer

You will have to register to ask questions

Acknowledgements

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Thank You!

- ▶ **This tutorial is contributed by Dr. Sathiya Narayanan and K.Sakthivel**
- ▶ **Thank you for joining**