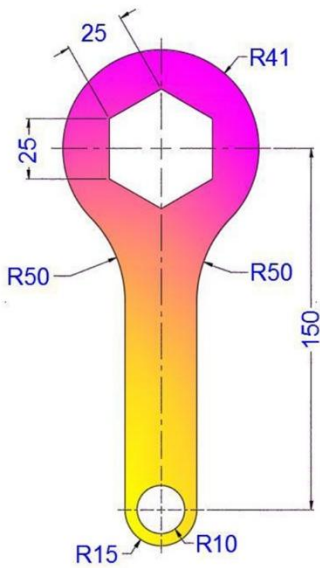


AUTODESK FUSION 360 ALL IN ONE WORKBOOK

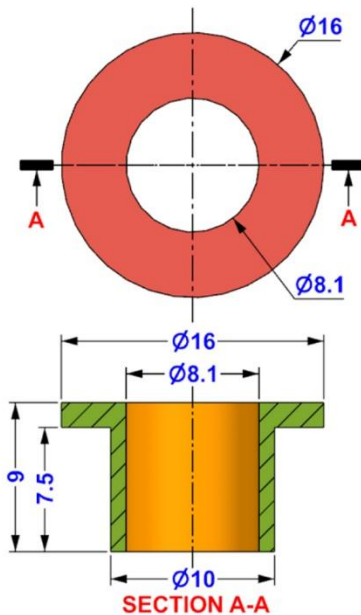
500+ PRACTICE EXERCISES

- **Sketching**



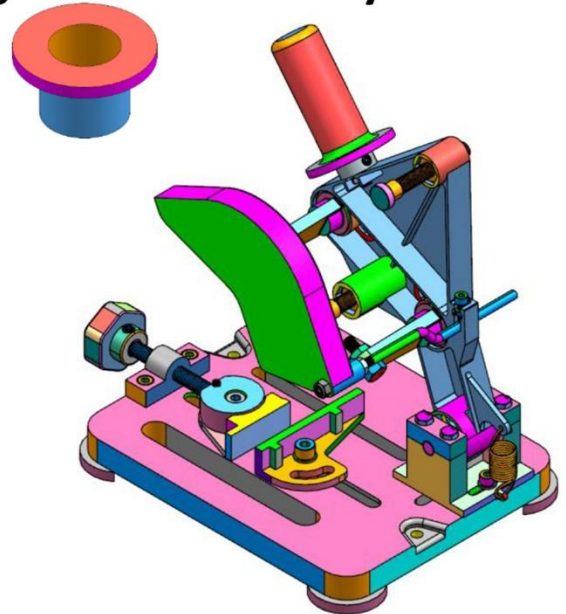
2D Sketching

- **3D Modeling**



3D Modeling

- **Assembly**



Assembly

SACHIDANAND JHA

AUTODESK FUSION 360 ALL IN ONE WORKBOOK

500+ PRACTICE EXERCISES

2D Sketching • 3D Modeling • Assembly Drawings

SACHIDANAND JHA



Dear Reader,

Thank you for choosing the AUTODESK FUSION 360 ALL IN ONE WORKBOOK. This book is part of the CADIN360° learning series, created to help engineers, students, and professionals master Fusion 360 through structured and practical exercises.

This book contains over 500 carefully crafted practice drawings, including:

- 200 2D Sketching Exercises
- 200 3D Modeling Exercises
- Comprehensive Assembly Models with 150+ Individual Part Drawings

We founded CADIN360 in 2016 with the goal of delivering practical, high-quality learning material for CAD software. More than 9 years later, we're still committed to producing consistently exceptional books. With each of our titles, we're working hard to set a new standard for the industry. From the paper we print on, to the authors we work with, our goal is to bring you the best books available.

I hope you see all that reflected in these pages. I'd be very interested to hear your comments and get your feedback on how we're doing. Feel free to let me know what you think about this or any other CADIN360 book by sending me an email at cadin360@gmail.com

If you think you've found a technical error in this book, please visit <https://cadin360.com/contact-us/>.

Customer feedback is critical to our efforts at CADIN360.

Best regards,

Sachidanand Jha
Founder & CEO, CADIN360



AUTODESK FUSION 360 ALL IN ONE WORKBOOK

Published by CADIN360

Website: cadin360.com

Copyright © 2025 by CADIN360, All rights reserved.

This book is copyrighted and the CADIN360 reserves all rights.

No part of this publication may be reproduced, stored in a retrieval system or transmitted, transcribed, stored in retrieval system or translated into any language, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, without the prior written permission of the publisher & Author.

Limit of Liability/Disclaimer of Warranty:

The publisher and the author make no representations or warranties with respect to the accuracy or completeness of the contents of this work and specifically disclaim all warranties, including without limitation warranties of fitness for a particular purpose. No warranty may be created or extended by sales or promotional materials. The advice and strategies contained herein may not be suitable for every situation. This work is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional services. If professional assistance is required, the services of a competent professional person should be sought. Neither the publisher nor the author shall be liable for damages arising herefrom. The fact that an organization or Web site is referred to in this work as a citation and/or a potential source of further information does not mean that the author or the publisher endorses the information the organization or Web site may provide or recommendations it may make. Further, readers should be aware that Internet Web sites listed in this work may have changed or disappeared between when this work was written and when it is read.

Examination Copies

Books received as examination copies in any form such as paperback and eBook are for review only and may not be made available for the use of the student. These files may not be transferred to any other party. Resale of examination copies is prohibited

Electronic Files & Usage Rights:

The electronic file/eBook in any form of this book is licensed to the original user only and may not be shared, distributed, resale or transferred to any other party. To access files, the user must contact **cadin360@gmail.com** with valid proof of purchase. Unauthorized distribution of the files is a violation of copyright law.

Disclaimer:

All product names, logos, brands, and registered trademarks mentioned in this publication are the property of their respective owners and are used for identification purposes only.

AUTODESK FUSION 360 ALL IN ONE WORKBOOK

- ❖ This book contains over 500 CAD practice exercises, organized as:
 1. 200 2D Sketching Exercises
 2. 200 3D Modeling Exercises
 3. Assembly Projects with 150+ Part Drawings
- ❖ This book is a practice workbook. It does not include step-by-step tutorials for creating 2D drawing, 3D models and Assembly.
- ❖ SI units (millimeters) are used for all dimensions.
- ❖ Third Angle Projection is used throughout this book.
- ❖ This book is for **AUTODESK FUSION 360** and also suitable for Other Feature-Based Modeling Software such as Inventor, Catia, SolidWorks, NX, Solid Edge, AutoCAD, PTC Creo etc.
- ❖ Designed for students, engineers, drafters, and designers looking for extensive CAD practice using Autodesk Fusion 360.
- ❖ The exercises cover a wide range of real-world modeling challenges—from simple sketches to complex assemblies—offering clear, concise, and structured drawing practice.
- ❖ Exercises are organized to gradually develop beginner to advanced-level design skills.
- ❖ Each exercise is self-contained, and can be completed independently.
- ❖ Assembly drawings follow industry standards to help improve visualization and multi-part modeling skills.
- ❖ All dimensions are in mm. Assume missing dimensions logically.

HOW TO USE THIS BOOK

This book contains over 500 CAD practice exercises, designed for self-paced learning using Autodesk Fusion 360 or any feature-based modeling software.

- 2D Sketching Exercises: Start here if you're a beginner or learning how to use the sketch environment.
- 3D Modeling Exercises: Follow after mastering sketching. Practice creating solid models using the provided dimensions.
- Assembly Drawings: Use after completing part models to understand multi-part assemblies, relationships, and constraints.

Tips for Best Use:

- Complete the exercises in order, or jump to any skill level you prefer.
- All dimensions are in millimeters.
- Where dimensions are missing, apply logic or practice estimation.
- This book is ideal for both students and professionals preparing for industry design work.

Note:

This book is available in multiple formats – **Black & White**, **Standard Color**, and **Premium Color** editions.

Happy learning!
– Team CADIN360



DRAWING FACES FROM SCRATCH IN FUSION 360: A STEP-BY-STEP GUIDE

• LEARN •

• APPLY •

• GROW •

Introduction

Fusion 360, a powerful computer-aided design (CAD) software, offers a wide range of tools to create detailed 3D models. One of the essential tasks in 3D modeling is creating a sketch on a face, which serves as the foundation for more complex designs. In this blog post, we will guide you through the step-by-step process of starting a sketch on a face in Fusion 360.

Setting Up the Sketch Environment

Before creating a sketch, it's essential to understand the basic concepts of Fusion 360's sketching environment. Familiarize yourself with the different tools and settings that will be used throughout this tutorial.

1. **Launch Fusion 360:** Open Fusion 360 on your computer and create a new part or open an existing one.
2. **Enter Sketch Mode:** Click on the "Sketch" tab in the top navigation bar to enter the sketching environment.
3. **Select a Face:** Click on the face where you want to create the sketch. You can also use the "Select Face" tool (hotkey: F) to select the face.

Creating a New Sketch

Now that you have set up the sketch environment, it's time to create a new sketch on the selected face.

Step 1: Create a New Sketch

1. **Create a New Sketch:** Click on the "Create Sketch" button in the "Sketch" tab.
2. **Select the Face:** Make sure the face you selected earlier is still highlighted.
3. **Choose a Sketch Type:** Fusion 360 offers two types of sketches: "2D Sketch" and "3D Sketch." For this tutorial, we will use the "2D Sketch" option.

Step 2: Define the Sketch Plane

The sketch plane is the 2D plane where you will create your sketch. You can define the sketch plane manually or let Fusion 360 automatically detect it.

1. **Define the Sketch Plane:** Click on the "Define Sketch Plane" button.

2. **Select a Reference:** Choose a reference point on the face to define the sketch plane.

Adding Entities to the Sketch

Now that you have created a new sketch, it's time to add entities to it.

Step 1: Add a Point

1. **Create a Point:** Click on the "Point" tool (hotkey: P) and click on the face to create a point.
2. **Verify the Point:** Make sure the point is created on the face and is not intersecting with any other entities.

Step 2: Add a Line

1. **Create a Line:** Click on the "Line" tool (hotkey: L) and click on two points to create a line.
2. **Verify the Line:** Make sure the line is created on the face and is not intersecting with any other entities.

Modifying the Sketch Entities

As you add more entities to the sketch, you may need to modify them to achieve the desired result.

Step 1: Move an Entity

1. **Select an Entity:** Click on the entity you want to move.
2. **Move the Entity:** Click on the "Move" tool (hotkey: M) and drag the entity to its new location.

Step 2: Rotate an Entity

1. **Select an Entity:** Click on the entity you want to rotate.
2. **Rotate the Entity:** Click on the "Rotate" tool (hotkey: R) and drag the entity to its new orientation.

Conclusion

Creating a sketch on a face in Fusion 360 is a fundamental skill that requires practice and patience. By following the steps outlined in this tutorial, you should now be able to create a sketch on a face and add entities to it. Remember to experiment with different tools and settings to

achieve the desired result.

FAQ

Q: What is the difference between a 2D sketch and a 3D sketch in Fusion 360?

A: A 2D sketch is a 2D plane where you can create 2D entities, while a 3D sketch is a 3D space where you can create 3D entities.

Q: How do I select a face in Fusion 360?

A: You can select a face by clicking on it or using the "Select Face" tool (hotkey: F).

Q: What is the purpose of defining a sketch plane in Fusion 360?

A: Defining a sketch plane sets the 2D plane where you will create your sketch.

Q: Can I modify a sketch entity after it's created?

A: Yes, you can modify a sketch entity by using the "Move," "Rotate," or "Scale" tools.

Q: How do I save a sketch in Fusion 360?

A: You can save a sketch by clicking on the "File" menu and selecting "Save As."

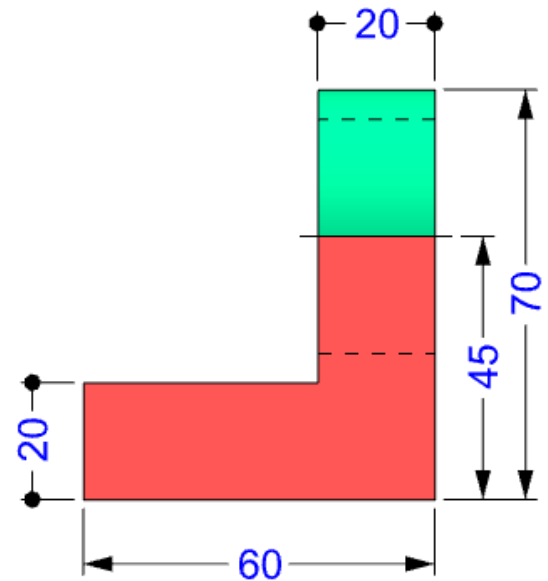
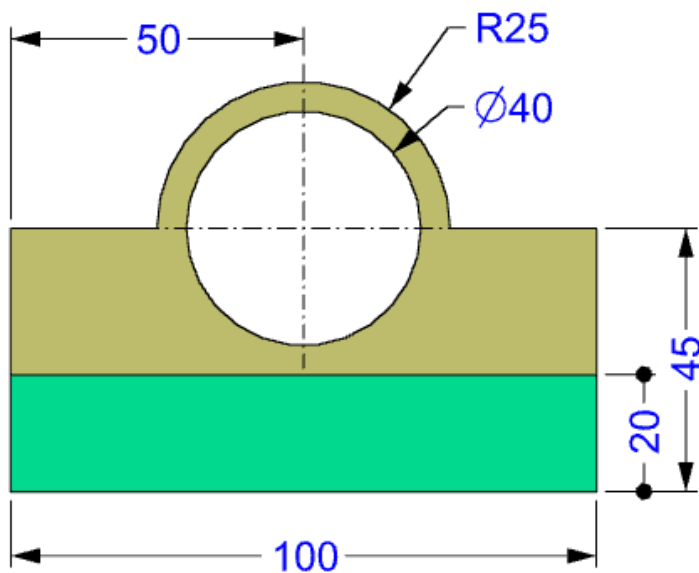
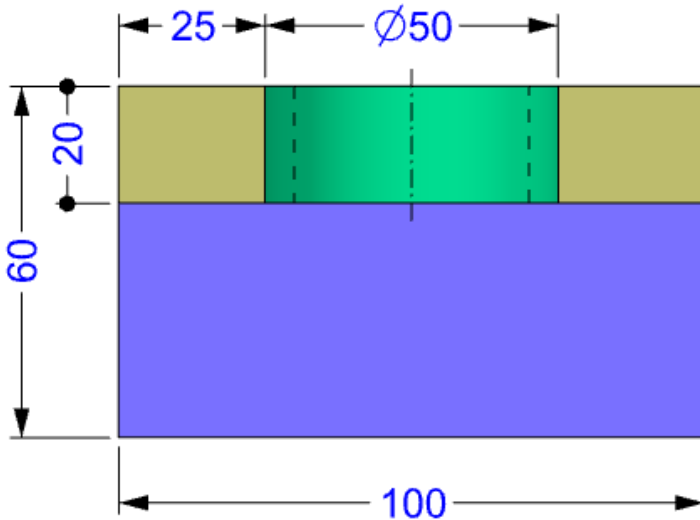
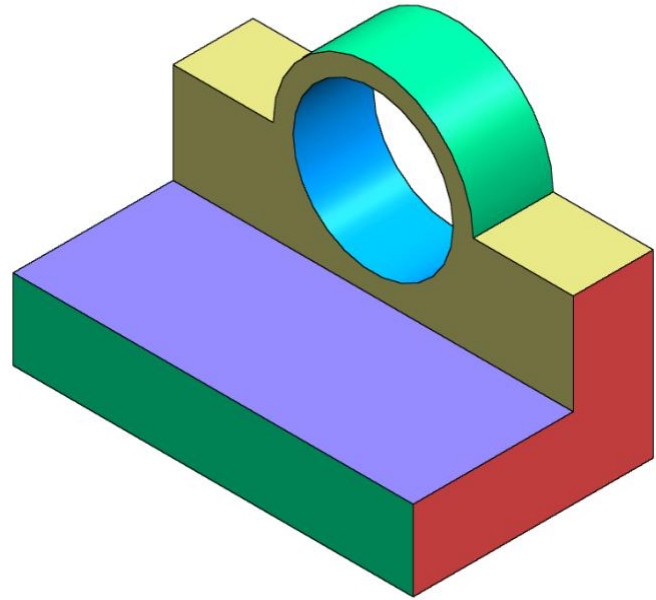
Q: Can I reuse a sketch in another part or assembly in Fusion 360?

A: Yes, you can reuse a sketch by copying and pasting it into another part or assembly.

Q: What is the difference between a sketch and a feature in Fusion 360?

A: A sketch is a 2D or 3D plane where you create entities, while a feature is a 3D entity that is created from a sketch.

3D

EXERCISE-03

Get The Complete Practice Sample

You downloaded a single Exercise PDF

The complete practice sample for this software includes multiple exercises and is not available inside this PDF..

What you will receive

- A software-specific complete sample PDF
- Multiple real practice exercises (not a single file)
- Same quality as our professional training material
- Compatible with the latest software version

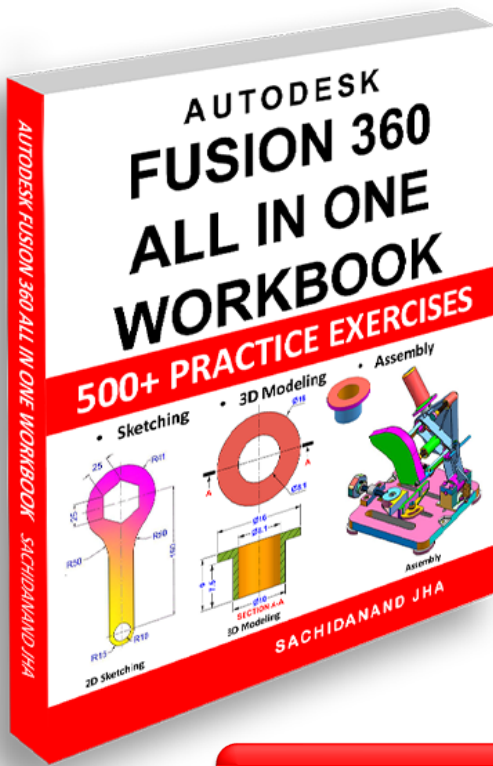
How to get the complete sample

Click the button below and **enter a valid email address**.
The **complete sample PDF will be delivered automatically**
after the form is submitted.

SEND THE COMPLETE SAMPLE TO MY EMAIL

END OF SAMPLE

What's Included in the **FUSION 360 ALL IN ONE WORKBOOK?**



- ✓ Books contains exercises of Sketching, 3D Modeling & Assembly.
- ✓ 500+ Practice Exercises with Dimensions
- ✓ Full Assembly STEP Files (.stp format) – Compatible with all major CAD software
- ✓ Get 200 3D Exercises in .f3d file format
- ✓ Get All Assembly Exercises in .STP file
- ✓ Instant Download Link - Sent to Your Email After Payment
- ✓ Lifetime Access to All Files

Get the Paperback book on Amazon

Get the Complete Bundle for Only \$27.99

Special Offer for Students & Learners

Are you a Student, Unemployed or Financially struggling ?
Get this special Bundle only for \$19.99

Special Offer for Only \$19.99



Thank You for Learning with Us!

Thank you for choosing the **AutoDesk Fusion 360 ALL IN ONE WORKBOOK**. We hope this book helped you strengthen your Fusion 360 skills through hands-on practice and real-world design challenges.

Your feedback means the world to us!

If you found this book helpful, please take a moment to leave a **review** on the Amazon where you purchased it. Your kind words not only motivate us but also help other learners discover our resources. Scan the QR.

★ A good review goes a long way!

Explore More CAD Practice Books


Looking to continue your learning journey?
We offer similar practice-based books for
over **30 CAD software platforms**, including:

- AutoCAD
- SolidWorks
- FreeCAD
- TinkerCAD
- TurboCAD
- Siemens NX
- CATIA
- Creo
- SketchUp and many more...

Visit our website  www.cadin360.com to browse the complete collection.

Stay Connected

Have suggestions, feedback, or just want to say hello?
We'd love to hear from you!

 Email: cadin360@gmail.com

 Website: www.cadin360.com

Keep Practicing. Keep Designing.

Whether you're a beginner or a pro, **practice is the key** to mastering any CAD software.
We're honored to be a part of your journey.

Happy Designing!

– Team **Cadin360**



Master Fusion 360 with Real-World Practice Exercises

This book contains over 500 Fusion 360 practice exercises including sketching, 3D modeling, and assembly drawings.

Designed for students, engineers, and professionals to build practical CAD modeling skills.

AUTODESK FUSION 360 ALL IN ONE WORKBOOK

This book contains:-

- 200 2D Sketching Exercises
- 200 3D Modeling Exercises
- Multi-part Assembly Exercises & Detailed Drawings
- All drawings in 3rd Angle projection
- All dimensions are in mm(metric system)