

COMPUTER-AIDED DESIGN



Computer-Aided Design Introduction

2-Dimensional CAD Introduction

File Origin, Command Prompt, & Sketch Tools

Orthographic Projection

X, Y Coordinates

Modify Sketch Commands

Snap Functions

Workflow

Color Coding

Layers

File Structures

Detailing

Dimensional Tools

Descriptive Annotations

3-Dimensional Modeling Introduction

Visualizing A Design In Space

2D Sketching

Sketch Relationships

Zero Point Origin

Dimensional Coordinate System

Design Intent

Feature-Based Parametric 3D Modeling

Common & Advanced 3D Features

Design Editing

Feedback Tools

3D Assembly Design Introduction

Part Mating/Alignment

6 Degrees Of Freedom

Types Of Mates

Interference Detection

Dynamic Motion

Collision Detection

Physical Dynamics

The Drawing File

CAD Analysis Introduction

Simulating Physical Tests

Material Characteristics

Model Meshing

Boundary Conditions

Linear Static Analysis

Flow Study

Motion Study

Interpretation Of Results