



*CAD*

**INTRODUCTION ABOUT THE IMPORTANCE OF CAD**  
**IN FASHION TECHNOLOGY**

## **CAD**

Computer aided design software is used by architects, drafters, artists and other to create precision drawings or technical illustrations. CAD software can be used to create two-dimensional drawings and three-dimensional models.

## **IMPORTANCE**

- CAD allows for the easier development of products and product management integration.
- CAD is extremely important and widely used to design and develop products to be used by consumers.
- When we are using computers aided design software. It will be much easier to make any changes because you can fix the errors and modify the drawings easily.
- We can save the files and store it without any unwanted hassles.
- It will save your time and you can make better and more efficient designs in shorter time duration.

## **FUNCTION**

CAD stands for computer aided design. The uses for CAD software are almost endless: to create blueprints for a building, to design a machine or to create layout for a fashion piece. CAD is most often used in the drafting of architecture and contracting, or technical designing by engineers. It has just recently been adopted by the fashion industry, but its popularity is growing.

## **SIGNIFICANCE**

Fashion is already an important industry just open any magazine celebrities are critiqued on which designer they favor.

## **DRAWBACKS**

Through many designers are beginning to use CAD in their design process, some have trouble making the change from paper to digital. Similar to some writers, some designers prefer to let their ideas flow while they jot them down by hand onto a sketch pad and drafting board.

## **FEATURES**

To address the CAD learning curve, software manufacture have come up with several solutions. For starts, there is now a CAD software component specially designed for fashion designers. Another useful tool is built in tutorials to aid the transition into CAD designing. Designers can create pieces using the measurements for a particular model. These and many other features make using fashion design CAD a lot easier for the beginner.

## **TOOLS OF ADOBE PHOTOSHOP**

# Tools Panel Overview



## A Selection tools

- Move (V)\*
- Rectangular Marquee (M)
- Elliptical Marquee (M)
- Single Column Marquee
- Single Row Marquee
- Lasso (L)
- Polygonal Lasso (L)
- Magnetic Lasso (L)
- Quick Selection (W)
- Magic Wand (W)

## B Crop and Slice tools

- Crop (C)
- Perspective Crop (C)
- Slice (C)
- Slice Select (C)

## C Measuring tools

- Eyedropper (I)
- 3D Material Eyedropper (I)
- Color Sampler (I)
- Ruler (I)
- Note (I)
- Count (I)

## D Retouching tools

- Spot Healing Brush (J)
- Healing Brush (J)
- Patch (J)
- Content Aware
- Red Eye (J)
- Clone Stamp (S)
- Pattern Stamp (S)

- Eraser (E)
- Background Eraser (E)
- Magic Eraser (E)
- Blur
- Sharpen
- Smudge
- Dodge (O)
- Burn (O)
- Sponge (O)

- Path Selection (A)
- Direct Selection (A)

- Rectangle (U)
- Rounded Rectangle (U)
- Ellipse (U)
- Polygon (U)
- Line (U)
- Custom Shape (U)

## E Painting tools

- Brush (B)
- Pencil (B)
- Color Replacement (B)
- Mixer Brush (B)
- History Brush (Y)
- Art History Brush (Y)
- Gradient (G)
- Paint Bucket (G)
- 3D Material Drop

## G Navigation tool

- Hand (H)
- Rotate View (R)
- Zoom (Z)

## F Drawing and type tools

- Pen (P)
- Freeform Pen (P)
- Add Anchor Point
- Delete Anchor Point
- Convert Point
- Horizontal Type (T)
- Vertical Type (T)
- Horizontal Type Mask (T)
- Vertical Type Mask (T)

▪ Indicates default tool    \* Keyboard shortcuts appear in parenthesis

Zoom tool (Z)

Zooms in or zooms out your image. The related tools shown in the Tool Options bar are Zoom In and Zoom Out. For more information about the Zoom tool, see [Zoom in or out](#)

### **Hand tool (H)**

Moves your photo in the Photoshop Elements workspace. You can drag your image using this tool. For more information, see [Viewing images in Expert or Quick modes](#).

## **Tools in the Select group of the Expert mode toolbox**

### **Move tool (V)**

Moves selections or layers. For more information, see [Move a selection](#).

### **Rectangular Marquee tool (M)**

Selects an area in your image in a rectangular box. Hold the Shift key to make the selection a square.

### **Elliptical Marquee tool (M)**

Selects an area in your image in an elliptical shape. Hold the Shift key to make the selection a circle.

### **Lasso tool (L)**

Selects an area in your image in a free-form shape.

### **Magnetic Lasso tool (L)**

Selects part of an image by selecting the high-contrast edges around a shape.

### **Polygonal Lasso tool (L)**

Draws straight-edged segments of a selection border.

### **Quick Selection tool (A)**

Makes a selection based on color and texture similarity when you click or click-drag the area you want to select.

### **Selection Brush tool (A)**

Selects the area where you paint with the brush.

**Magic Wand tool (A)**

Selects the pixels with similar colors in a single click.

**Refine Selection Brush tool (A)**

Adds or removes areas to and from a selection by automatically detecting the edges. For more information on this tool, see [Edit and refine selections](#).

**Auto Selection tool (A)**

Automatically makes a selection when you draw a shape around the object you want to select.

For more information on selection, see [Use tools to make selections](#).

**Tools in the Enhance group of the Expert mode toolbox****Eye tool (Y)**

Removes the red eye effect, pet eye effect, and corrects closed eyes in your photos. For more information about the tool, see [Precisely remove red eye](#), [Remove the Pet Eye effect](#), and [Correct closed eyes](#).

**Spot Healing Brush tool (J)**

Removes spots from your photos. For more information about this tool, see [Remove spots and unwanted objects](#).

**Healing Brush tool (J)**

Removes spots from your photo by selecting a part of your photo as the reference point.

**Smart Brush tool (F)**

Applies tonal and color adjustments to specific areas of a photo.

**Detail Smart Brush tool (F)**

Paints the adjustment to specific areas of a photo just like a painting tool.

For more information about Smart brushes, see [Adjust color and tonality using the Smart Brush tools](#) and [Apply the Smart Brush tools](#).

**Clone Stamp tool (S)**

Paints with an image sample, which you can use to duplicate objects, remove image imperfections, or paint over objects in your photo. You can also clone part of an image to another image. For more information, see [Clone images or areas in an image](#).

### **Pattern Stamp tool (S)**

Paints with a pattern defined from your image, another image, or a preset pattern. For more information, see [Use the Pattern Stamp tool](#).

### **Blur tool (R)**

Softens hard edges or areas in an image by reducing details. For more information, see [Blur or soften edges](#).

### **Sharpen tool (R)**

Sharpens a photo by focusing soft edges in the photo to increase clarity or focus. For more information on sharpening, see [Sharpen an image](#).

### **Smudge tool (R)**

Simulates the actions of dragging a finger through wet paint. The tool picks up color where the stroke begins and pushes it in the direction you drag. For more information on the tool, see [Use the Smudge tool](#).

### **Sponge tool (O)**

Changes the color saturation of an area. For more information on how to use the tool, see [Adjust saturation in isolated areas](#).

### **Dodge tool (O)**

Lightens areas of an image. You can use the tool to bring out details in shadows. For more information on the Dodge tool, see [Quickly lighten or darken isolated areas](#).

### **Burn tool (O)**

Darkens areas of the image. You can use the tool to bring out details in highlights. For more information on the Burn tool, see [Quickly lighten or darken isolated areas](#).

## **Tools in the Draw group of the Expert mode toolbox**

**Brush tool (B)**

Creates soft or hard strokes of color. You can use it to simulate airbrush techniques. For more information about the tool, see [Use the Brush tool](#).

**Impressionist Brush tool (B)**

Changes the existing colors and details in your image so your photo looks like it was painted using stylized brush strokes. For more information about the tool, see [Use the Impressionist Brush tool](#).

**Color Replacement tool (B)**

Simplifies replacing specific colors in your image. For more information about the tool, see [Replace color in an image](#).

**Eraser tool (E)**

Erases the pixels in the image as you drag through them. For more information about the tool, see [Use the Eraser Tool](#).

**Background Eraser tool (E)**

Turns color pixels to transparent pixels so that you can easily remove an object from its background. For more information about the tool, see [Use the Background Eraser tool](#).

**Magic Eraser tool (E)**

Changes all similar pixels when you drag within a photo. For more information, see [Use the Magic Eraser tool](#).

**Paint Bucket tool (K)**

Fills an area that is similar in color value to the pixels you click. For more information about the tool, see [Use the Paint Bucket tool](#).

**Pattern tool (K)**

Applies a fill or a pattern to your image, instead of using one of the brush tools. For more information, see [Fill a layer with a color or pattern](#).

**Gradient tool (G)**

Fills in an area of image by a gradient. For more information, see [Apply a gradient](#).



**Color Picker tool (I)**

Copies or samples the color of an area in your photo to set a new foreground or background color. For more information about the tool, see [Choose a color with the Eyedropper tool.](#)

**Custom Shape tool (U)**

Provides different shape options for you to draw. When you select the Custom Shape tool, you can access these shapes in the Tool Options bar.

CAD

## TOOLS OF COREL DRAW



**Pick tool** - Select, position, or transform objects. more details



**Freehand Pick tool** - Select objects by using a freehand selection marquee. Position and transform objects. more details



**Shape tool** - Edit a curve object or text character by manipulating nodes. more details



**Smudge Brush tool** - Change the shape of an object by dragging along its outline. more details



**Roughen Brush tool** - Distort the edge of an object by dragging along its outline. more details



**Free Transform tool** - Rotate, skew, mirror, and scale objects. more details



**Smear tool** - Change the edge of an object by dragging along its outline. more details



**Twirl tool** - Add swirl effects by dragging along the outline of an object. more details



**Attract tool** - Reshape objects by attracting nodes to the cursor. more details



**Repel tool** - Reshape objects by pushing nodes away from the cursor. more details



**Smooth tool** - Smooth object by dragging along its outline. more details



**Crop tool** - Remove the areas outside a selection. more details



**Knife tool** - Slice an object to split it into two separate objects. more details



**Eraser tool** - Remove unwanted areas in a drawing. more details



**Virtual Segment Delete tool** - Remove overlapping segments in objects. more details



**Zoom tool** Change the magnification level of the document window. more details



**Pan tool** - Drag hidden areas of a drawing into view without changing the zoom level. more details



**Freehand tool** - Draw curves and straight line segments. more details



**2-Point Line tool** - Draw a straight line by drawing from the starting point to the endpoint. more details



**Bezier tool** - Draw curves one segment at a time. more details



**Artistic Media tool** - Add artistic brush, spray, and calligraphic effects by using freehand strokes. more details



**Pen tool** - Draw curves in segments, and preview each segment as you draw. more details



**B-Spline tool** - Draw curved lines by setting control points that shape the curve without breaking it into segments. more details



**Polyline tool** - Draw connected curves and straight lines in one continuous action. more details



**3-Point Curve tool** - Draw a curve by dragging from the starting point to the endpoint and then positioning the center point. more details



**Smart Fill tool** - Create objects from overlapping areas, and apply a fill to

those objects. more details



**Smart Drawing tool** - Convert freehand strokes to basic shapes or smoothed curves. more details



**Rectangle tool** - Draw squares and rectangles by dragging in the drawing window. more details



**3-Point Rectangle tool** - Draw rectangles at an angle. more detail



**Ellipse tool** - Draw circles and ellipses by dragging in the drawing window. more details



**3-Point Ellipse tool** - Draws ellipses at an angle. more details



**Polygon tool** - Draw polygons by dragging in the drawing window. more detail



**Star tool** - Draw uniform, outlined stars. more details



**Complex Star tool** - Draw stars that have intersecting sides. more details



**Graph Paper tool** - Draw a grid. more details



**Spiral tool** - Draw symmetrical and logarithmic spirals. more details



**Basic Shapes tool** - Draw triangles, circles, cylinders, hearts and other shapes. more details



**Arrow Shapes tool** - Draw arrows of various shapes and directions. more details



**Flowchart Shapes tool** - Draw flowchart symbols. more details



**Banner Shapes tool** - Draw ribbon objects and explosion shapes. more details



**Callout Shapes tool** - Draw labels and speech bubbles. [more details](#)



**Text tool** - Add and edit paragraph and artistic text. [more details](#)



**Table tool** - Draw, select, and edit tables. [more details](#)



**Parallel Dimension tool** - Draw slanted dimension lines. [more details](#)



**Horizontal or Vertical Dimension tool** - Draw horizontal or vertical dimension lines. [more details](#)



**Angular Dimension tool** - Draw angular dimension lines. [more details](#)



**Segment Dimension tool** - Display the distance between end nodes on single or multiple segments [more details](#)



**3-Point Callout tool** - Draw a callout with a two-segment leadingline. [more details](#)



**Straight-Line Connector tool** - Draw a straight line to connect two objects. [more details](#)



**Right-Angle Connector tool** - Draw a right angle to connect two objects. [more details](#)



**Right-Angle Round Connector tool** - Draw a right angle with a rounded corner to connect two objects. [more details](#)



**Edit Anchor tool** - Modify the connector line anchor points of objects. [more details](#)



**Blend tool** - Blend objects by creating a progression of intermediate objects and colors. [more details](#)



**Contour tool** - Apply a series of concentric shapes that radiate into or out of an object. [more details](#)



**Distort tool** - Transform objects by applying Push and Pull, Zipper, or Twister effects. [more details](#)



**Drop Shadow tool** - Apply shadows behind or below objects. [more details](#)



**Envelope tool** - Change the shape of an object by applying and dragging the nodes of an envelope. [more details](#)



**Extrude tool** - Apply 3D effect to objects to create the illusion of depth. [more details](#)



**Transparency tool** - Partially reveal image areas underneath the object. [more details](#)



**Color Eyedropper tool** - Sample colors, and apply them to objects. [more details](#)



**Outline Pen** - Set outline properties such as line thickness, corner shape, and arrow type. [more details](#)



**Outline Color** - Choose the outline color by using color viewers and color palettes. [more details](#)



**Uniform Fill** - Choose a solid fill color for an object by using color palettes, color viewers, color harmonies, or color blends. [more details](#)



**Fountain Fill** - Fill an object with a gradient of colors or shades. [more details](#)



**Pattern Fill** - Apply a preset pattern fill to an object or create a custom pattern fill. [more details](#)



**Texture Fill** - Apply preset texture fills to objects to create the illusion of a variety of textures, such as water, clouds and stone. [more details](#)



**PostScript Fill** - Apply an intricate PostScript texture fill to an object. [more details](#)



**Interactive Fill tool** - Create a fill dynamically by using markers in the drawing window and property bar to change the angle, midpoint, and color. [more details](#)



**Mesh Fill tool** - Fill an object by blending multiple colors or shades arranged over a mesh grid. [more details](#)

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