# 20 Essential AutoCAD Commands for Beginners (Step-by-Step Guide)

### What are AutoCAD Commands?

AutoCAD commands are specific instructions or actions used within the AutoCAD software to perform various tasks. They are typically entered through the command line or executed using shortcut keys. These commands are used to create, modify, and manage digital drawings and designs in a precise and efficient manner. They can involve actions such as drawing lines, circles, and arcs, editing objects, applying dimensions, and navigating through the workspace.

### Why is important to learn the basic commands in AutoCAD?

Knowing basic AutoCAD commands is important for drafters as it enhances efficiency by enabling quick and effective work, ensures accuracy in maintaining precise measurements and proportions, and boosts productivity by allowing faster completion of tasks and handling larger workloads.

### What are toggle keys shortcuts used for?

Toggle keys are used to switch on and off certain settings, modes, or features within the software. It allows you to easily enable or disable specific functionalities as per their requirements. Toggling can involve various aspects of AutoCAD, such as object snaps, grid display, ortho mode, polar tracking, layers, and more. The following are the most useful ones.

## The Essential AutoCAD Toggle Keys (Keyboard Shortcuts)

Before learning the full AutoCAD commands list, you must understand toggle keys. These AutoCAD keyboard shortcuts activate precision tools that improve accuracy while drawing.




### F3 (object snap mode) On/Off

When Object Snap mode is enabled, AutoCAD provides snap points and markers as you move the cursor over objects or specific points in the drawing. These snap points allow you to accurately snap to endpoints, midpoints, intersections, and other relevant points for precise object placement and alignment.

### F8 (ortho mode) On/Off

When Ortho mode is active, AutoCAD constrains object movement to horizontal or vertical directions, aligning them with the X or Y axis. This helps you draw or move objects in straight lines and maintain precise alignment with the grid or other reference points.

### F9 (snap mode) On/Off

When Snap mode is enabled, AutoCAD aligns the cursor to the grid or specified snap increments, providing a visual reference for object placement and alignment. This allows you to easily position objects at specific intervals or grid points, ensuring accuracy in the drawing.

### F10 (Polar mode) On/Off

When Polar Tracking is active, AutoCAD displays tracking vectors and snap points at specified polar increments as you move the cursor. This helps you draw or edit objects at precise angles or distances, aligning them with predefined angles or radial measurements.

### F11 (Object snap tracking) On/Off

With Object Snap Tracking enabled, AutoCAD displays tracking vectors and temporary snap points along alignment paths, such as extension lines or object centers. This feature helps you align or position objects accurately along desired paths or alignments.

## The AutoCAD Commands List: The 20 Most Important Commands

Below, you'll find a structured list of the essential AutoCAD commands for beginners, with clear step-by-step instructions to help you apply each command efficiently in real drafting situations.



## 1. L (LINE) / *Creates straight line segments between two specified points.*

Type **"L"** or **"LINE"** and press enter to activate. Select the starting point, then type a dimension, press enter or select an ending point of the line. Press enter or right-click to complete the line segment. You can activate or deactivate ortho mode **F8** any time.

## 2. PL (POLYLINE) / *Creates a series of connected line segments or arcs.*

Type **"PL"** or **"PLINE"** and press enter to activate. Select the starting point, then select the points that define the vertices or type the dimensions pressing enter in between. Press enter or right-click to finish creating the polyline.

## 3. A (ARC) / *Creates an arc.*

Type **"A"** or **"ARC"** and press enter to activate. Specify the starting point of the arc by clicking on a location in the drawing, then define the second point of the arc and finally determine the third point that will determine the shape of the arc.

## 4. C (CIRCLE) / *Creates a circle.*

Type **"C"** or **"CIRCLE"** and press enter to activate. Select the starting point, then type a radius dimension, press enter or select an ending point. Press enter or right-click to complete the circle.

## 5. REC (RECTANGLE) / *Creates a rectangular or squares polyline.*

Type **"REC"** or **"RECTANGLE"** and press enter to activate. Specify two opposite corners of the rectangle. You can custom the dimensions, by typing **"D"** before specifying second point then press enter. First you need to define the dimension for the X axis, by selecting a reference point then type dimension, press enter, or select a second reference point. Then you need to define dimensions for Y axis by doing the same previous steps. Select the side you want then press enter or right-click to finish creating the rectangle.

## 6. DI (DIST) / *Measures the distance between two points.*

t provides a quick way to calculate the distance between any two objects or points. Type **"DI"** or **"DISTANCE"** and press enter to activate. Select the first point followed by the second point. AutoCAD will display the distance between the two points in the command line or as an annotation on the screen.

## 7. CO (COPY) / *Creates a copy of selected objects.*

Type **"CO"** or **"COPY"** and press enter to activate. Select the objects you want to copy and press enter. Then specify a base point as the reference for the copy, specify the destination point or type a specific distance. Press Enter or right-click to complete the copy operation.

### 8. M (MOVE) / *Moves objects a specified distance in a specified direction.*

Type **"M"** or **"MOVE"** and press enter to activate. Select the objects you want to move and press enter. Then specify a base point as the reference for the move, Finally, specify the destination point or type a specific distance. Press enter or right-click to complete the copy operation. You can activate or deactivate ortho mode **F8** any time.

### 9. F (FILLET) / *Creates rounds and fillets the edges between two lines or objects.*

Type **"F"** or **"FILLET"** and press enter to activate. Select the two lines or objects that you want to create a fillet between. To specify a radius type **"R"**, press enter, specify the radius dimension you want, press enter, then Select the two lines you want to create a radius fillet between. Press enter or right-click to complete the fillet operation.

### 10. O (OFFSET) / *Creates concentric circles, parallel lines, and parallel curves.*

Type **"O"** or **"OFFSET"** and press enter to activate. Select the object you want to offset, specify the distance, press enter, select the object and side for the offset. AutoCAD will create a parallel copy of the object based on the specified distance and side. Press enter or right-click to complete the offset operation.

### 11. TR (TRIM) / *Trims objects to meet the edges of other objects.*

Type **"TR"** or **"TRIM"** and press enter to activate. Select the cutting edges or objects. After selecting the cutting edges, select the objects you want to trim. AutoCAD will remove the portions of the objects that intersect with the cutting edges. Press enter or right-click to complete the trim operation.

### 12. EX (EXTEND) / *Extends objects to meet the edges of other objects.*

Is used to lengthen or extend selected lines, arcs, or objects to meet specified boundaries or other objects. Type "**EX**" or **"EXTEND"** and press enter to activate. Select the objects you want to extend, specify the objects that will act as boundaries or extension limits. Press enter or right-click to complete the mirror operation.

### 13. MI (MIRROR) / *Creates a mirrored copy of selected objects.*

It reflects the objects about a specified line, which acts as a mirror axis. Type **"MI"** or **"MIRROR"** and press enter to activate. Select the objects you want to mirror, press enter, then specify two points that define the mirror axis. AutoCAD will create a mirror image of the selected objects based on the specified axis. Press enter or right-click to complete the mirror operation.

### 14. RO (ROTATE) / *Rotate selected objects around a specified point or axis.*

Type **"RO"** or **"ROTATE"** and press enter to activate. Select a base point from which the rotation will occur. To specify the reference length type **"R"**, press enter, select base point then select second point of reference for rotation. Press enter or right-click to complete the scale operation.

### 15. S (STRETCH) / *Stretches objects crossed by a selection window or polygon.*

It allows you to move specific points or vertices of an object while maintaining the overall shape. Type **"S"** or **"STRETCH"** and press enter to activate. Select the objects you want to stretch, press enter, then drag the selected grips or points to stretch the objects. You can also define a specific dimension and then press enter or right-click to complete the stretch operation.

### 16. SC (SCALE) / *Enlarges or reduces selected objects, keeping the proportions.*

It allows you to uniformly scale objects or specify different scales for the X, Y, and Z directions. Type **"SC"** or **"SCALE"** and press enter to activate. Select the objects you want to scale, press enter, then specify a base point from which the scaling will occur. To specify the reference length type **"R"**, press enter, select base point then select second point of reference for scaling. Press enter or right-click to complete the scale operation.

### 17. MA (MATCHPROP) / *Applies properties of a selected object to other objects.*

It allows you to quickly match the properties, such as color, layer, linetype, and more, between different objects. Type **"MA"** or **"MATCHPROP"** and press enter to activate. Select the source object from which you want to copy the properties then select the target object(s) to which you want to apply the copied properties. AutoCAD will match the properties of the source object to the target object(s). Press enter or right-click to complete the hatch operation.

### 18. H (HATCH) / *Apply a hatch pattern or fill to a closed area or boundary.*

Hatching is commonly used to represent different materials or areas within a drawing. Type **"H"** or **"HATCH"** and press enter to activate. Then select the boundary or closed area where you want to apply the hatch. After selecting the boundary, you can choose a predefined hatch pattern or create a custom one. AutoCAD will fill the selected area with the chosen hatch pattern. Press enter or right-click to complete the hatch operation.

### 19. T (TEXT) / *Used to add text annotations to a drawing.*

Type **"T"** or **"TEXT"** and press enter to activate. Specify two opposite corners then type your text. Press enter or right-click to complete the hatch operation.

### 20. E (ERRASE) / *Delete or remove selected objects or entities from the drawing.*

Type **"E"** or **"ERRASE"** and press enter to activate. Select the objects you want to erase by clicking on them. You can select multiple objects by holding down the Shift key while clicking. Press enter or right-click to complete the hatch operation.