

Introduction to AutoCAD

AutoCAD Basics.

How to install AutoCAD

**Run AutoCAD for the first
time**

Using the mouse and keyboard



What is CAD?

- Computer Aided Drafting
- Autodesk is the most popular drawing program
- Many student versions available for free online at students.autodesk.com
 - AutoCAD
 - Architecture
 - Mechanical
 - Revit
 - Inventor
 - Civil
 - MEP
 - etc.



Autodesk

- Capabilities:
 - 2D line drawings
 - 3D constructions
 - Rendering
 - Part Assemblies



What is AutoCAD?

Computerized program
Most common in the field of
drawing
Engineering

Free copies are available for
students at the link.

[https://www.autodesk.com/
education/home](https://www.autodesk.com/education/home)

AutoCAD capabilities

2D drawing
3D drawing

Connecting parts together
(assembly)



It is a computer-aided design and drafting program that supports the creation of two- and three-dimensional drawings. This program was developed since 1982 as an application for personal computers, and since 2010 it has become available as a web application that works through browsers and smartphones based on the principle of cloud storage under the current trade name AutoCAD 360

AutoCAD is developed and marketed by Autodesk, which released the first version of AutoCAD in December 1982. Since March 1986, it has become the most widely used design program in the world for personal computers, while most computer-aided design programs at that time worked on mainframes.

AutoCAD is a general-purpose design program used in many fields (civil, architectural, electrical, mechanical, interior design, and drawing). It is used by engineers of various specialties for construction drawings and engineering designs, in addition to many professions and industries.



Install AutoCad

1. AutoCad is on your computer? Do Nothing
2. You have an old version? Update
Versions 2016-2020 are close to each others
3. No AutoCad on your computer? Yes:
 - a. Let a programmer to install it on your computer
 - b. You install AutoCad from CD, Free Link, or buy from internet

Installation steps are in the following slides



Install Step 1:

Open the link or the CD

التنصيب: الخطوة 1:

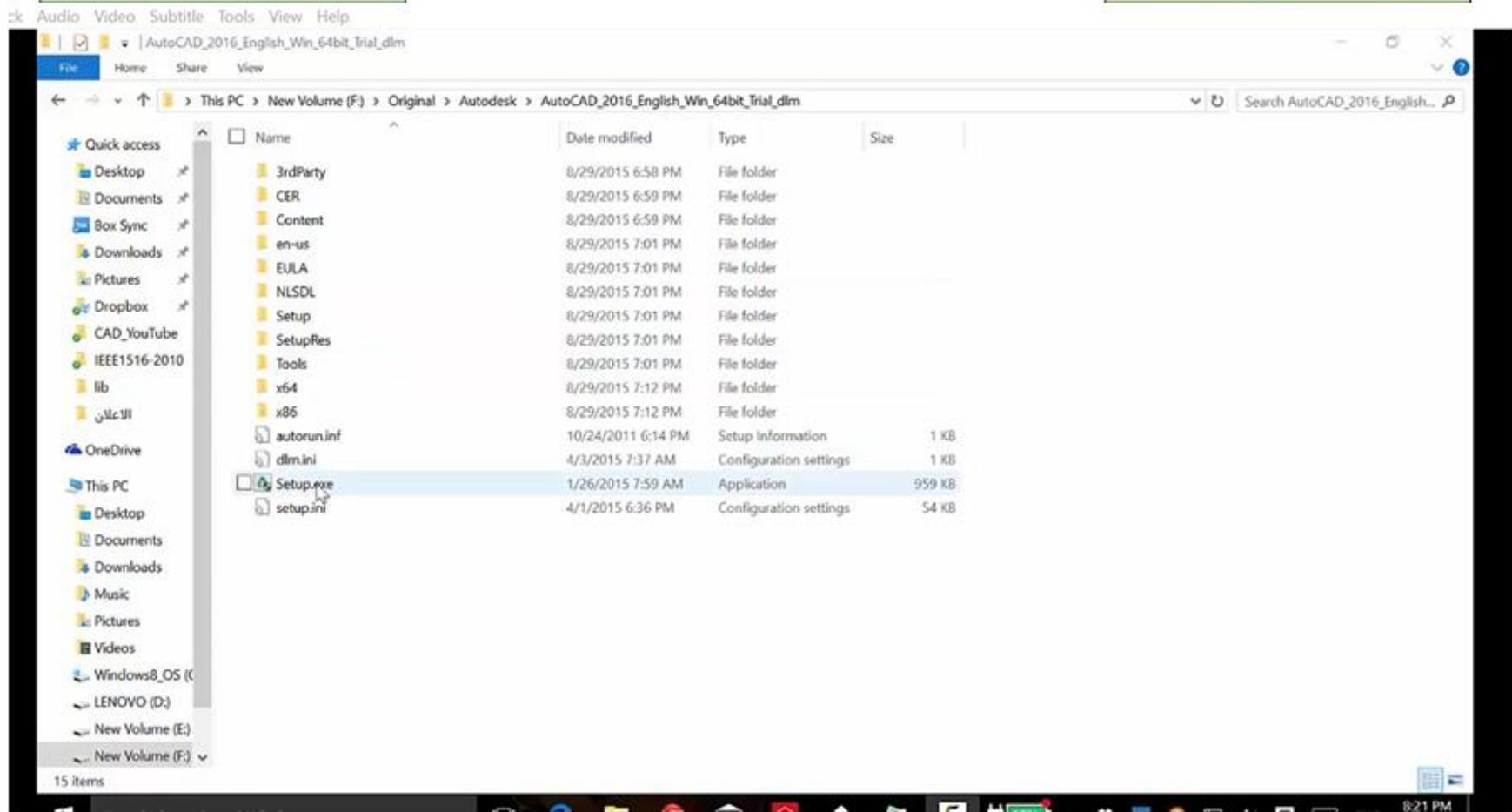
افتح الرابط او القرص

The screenshot shows a web browser window displaying the Autodesk website. The address bar shows the URL: www.autodesk.com/education/free-software/autocad#. The page features the Autodesk logo, a search bar, and user information for Mostafa Ali. The main heading is "Education: Downloads AUTOCAD". Below this, there is a section titled "Free software download for students & educators" with an AutoCAD logo and a description: "Design and shape the world around you with the powerful, connected design tools in AutoCAD software. Create stunning 3D designs, speed documentation, and connect with the cloud to collaborate on designs and access them from your mobile device." There are two buttons: "Learn more" and "Get the full suite". A red box highlights the URL: <http://www.autodesk.com/education/free-software/autocad>. The browser's taskbar at the bottom shows the time as 8:08 PM on 8/28/2015.



**Install Step 2:
Press Setup.exe**

**التنصيب: الخطوة 2:
اضغط على ايقونة تنصيب**





Install Step 3:
Press Install

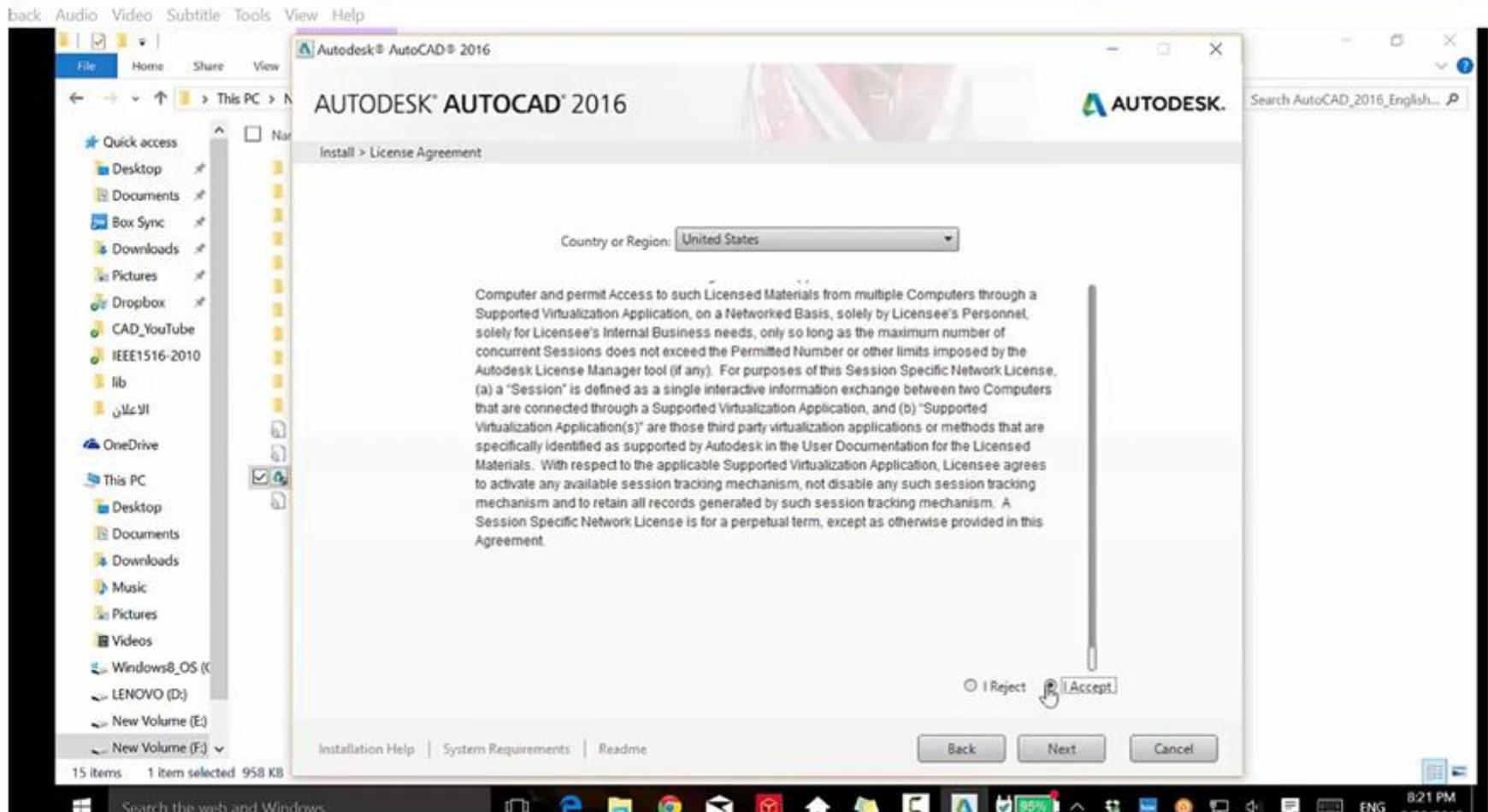
التنصيب: الخطوة 3:
اضغط نصب





Install Step 4:
Select Accept

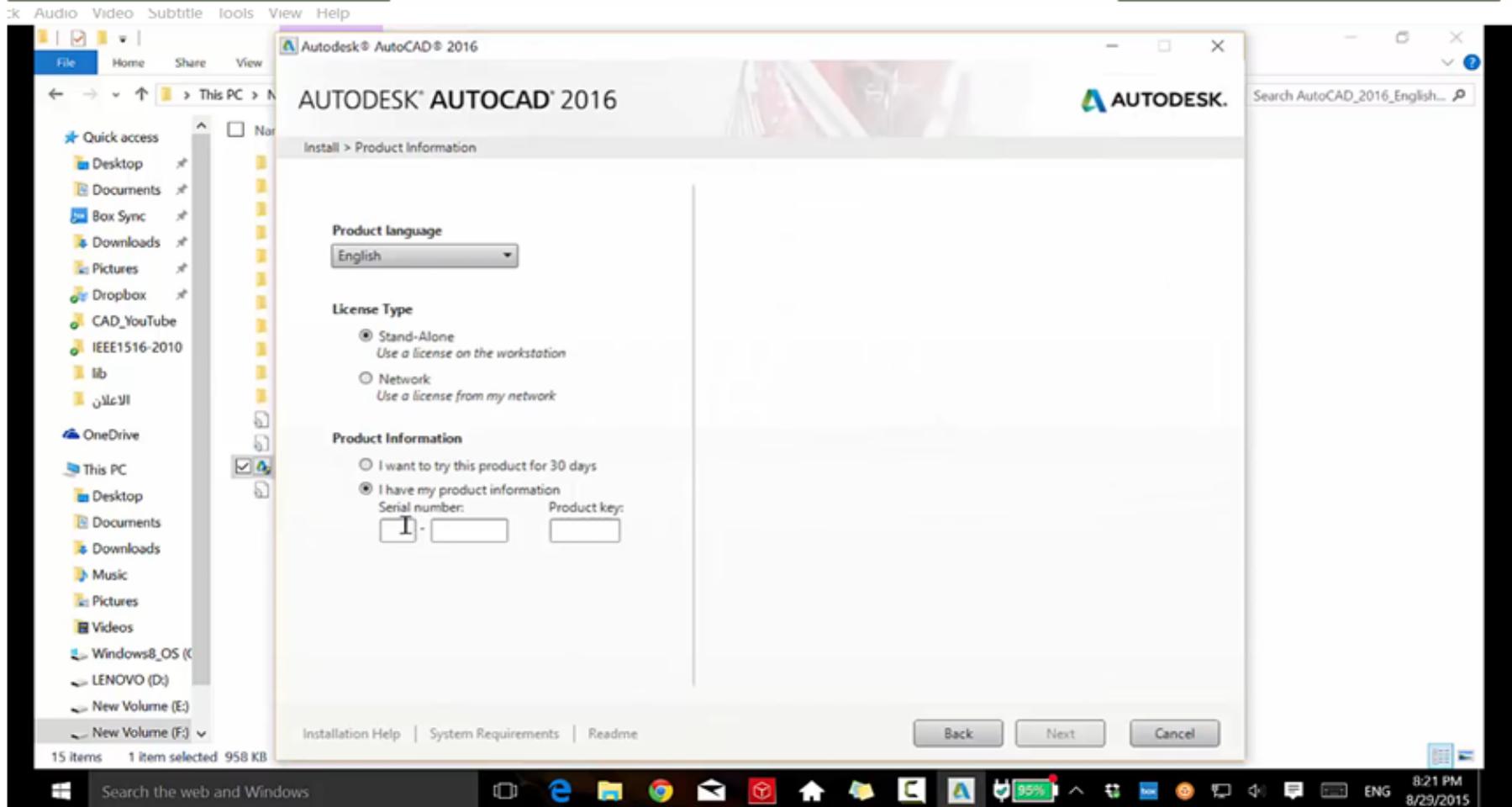
التنصيب: الخطوة 4:
اختر موافق





Install Step 5:
Input Serial Number

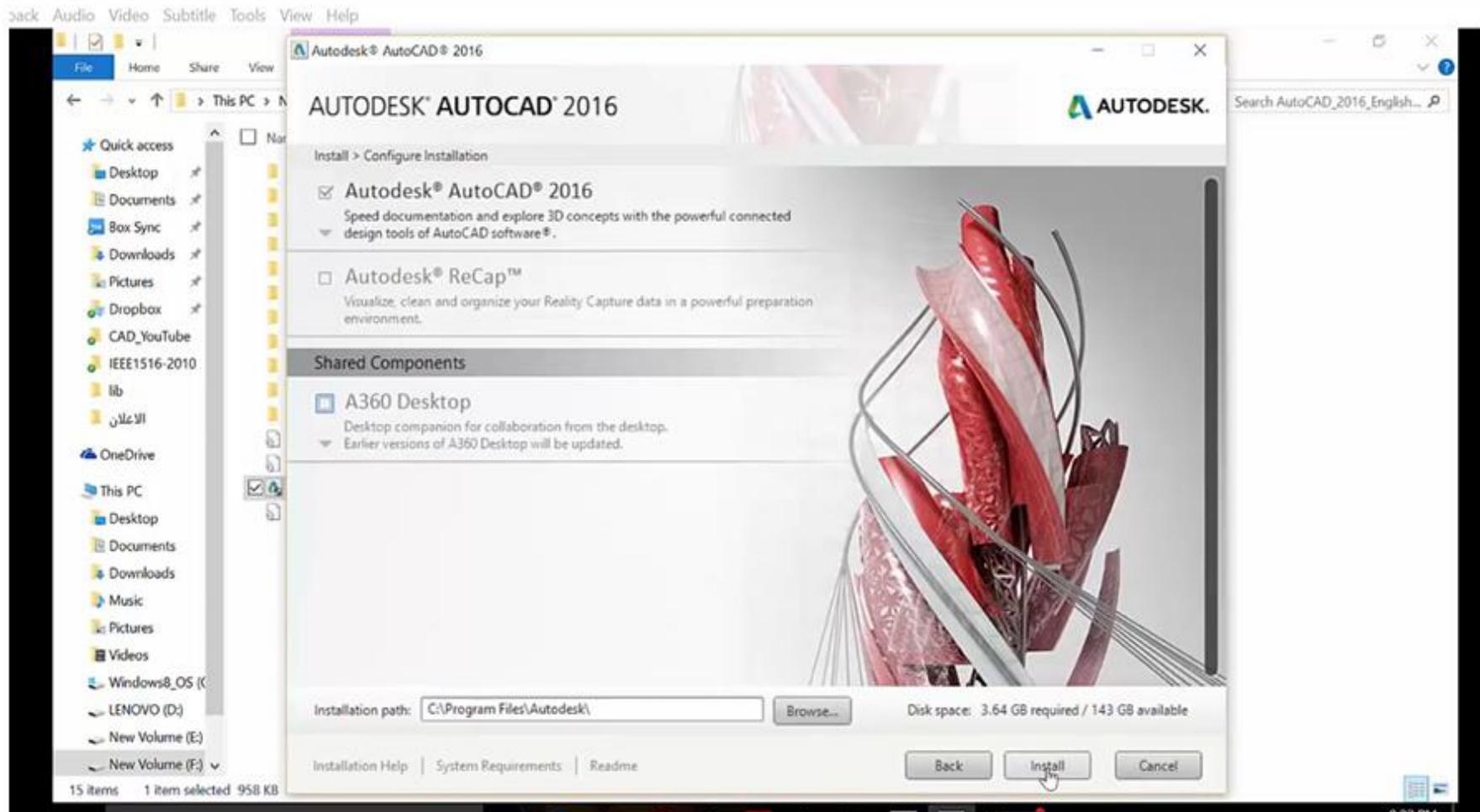
التنصيب: الخطوة 5:
ادخل الرقم التسلسلي





Install Step 6:
Select Autodesk

التنصيب: الخطوة 6:
اختر اوتوديسك





Install Step 7:

Wait until Completion of installation

التنصيب: الخطوة 7:

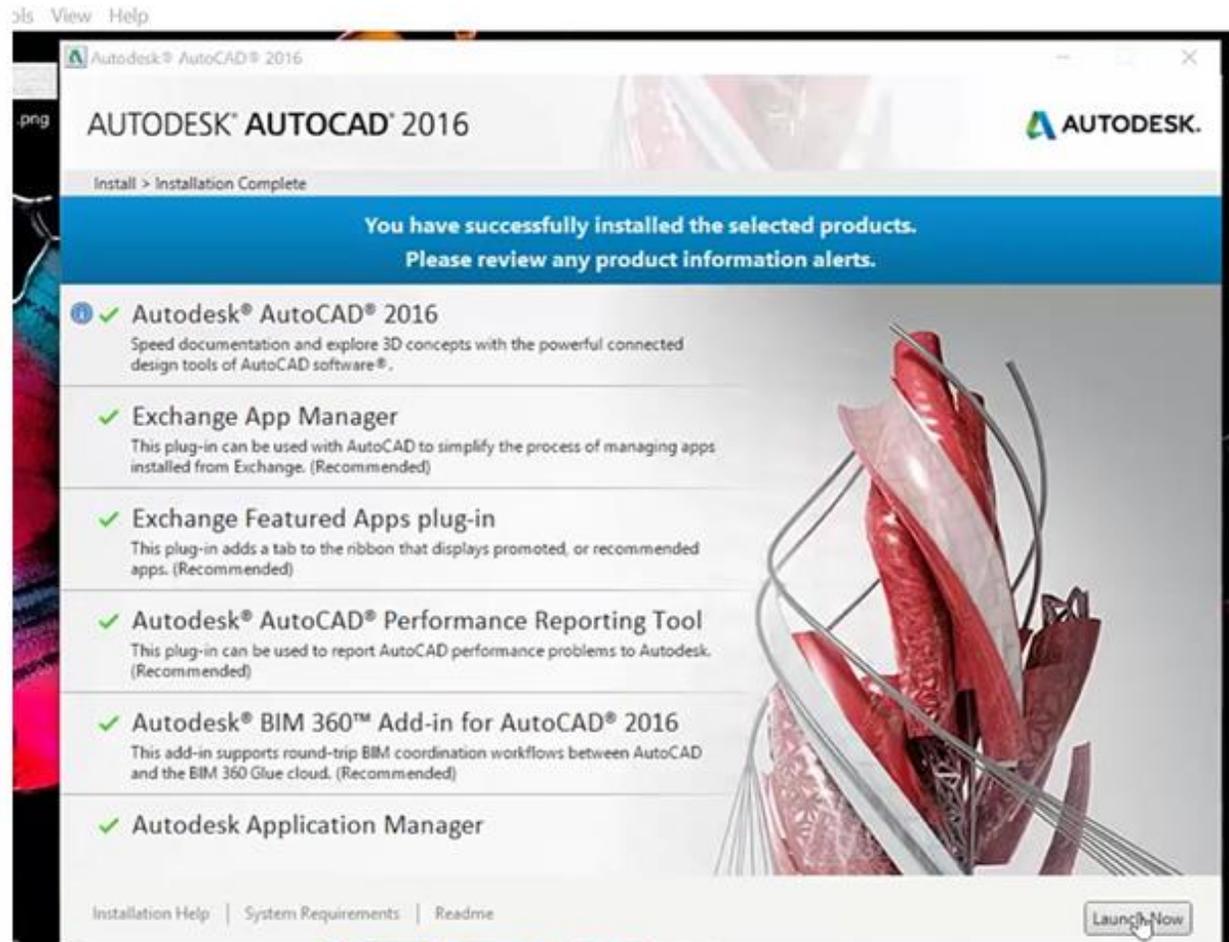
انتظر اكمال التنصيب





Install Step 8:
Press Launch Now

التنصيب: الخطوة 8:
اضغط اطلق الان



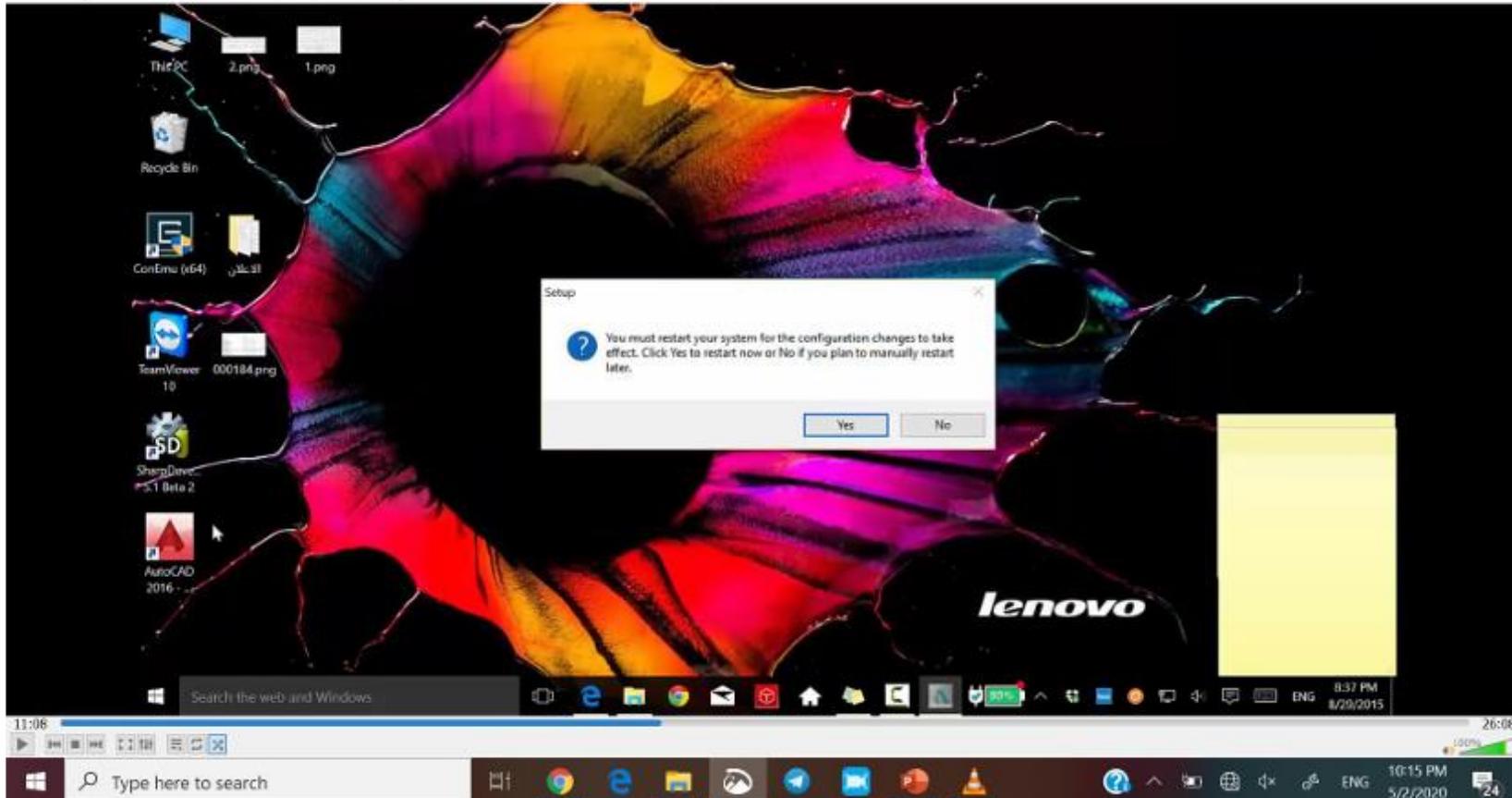


**Install Step 9:
Restart you computer**

**التنصيب: الخطوة 9:
اعد تشغيل الحاسوب**

المقدمة (1 - 2016) تعليم اوتوكاد - VLC media player

Media Playback Audio Video Subtitle Tools View Help



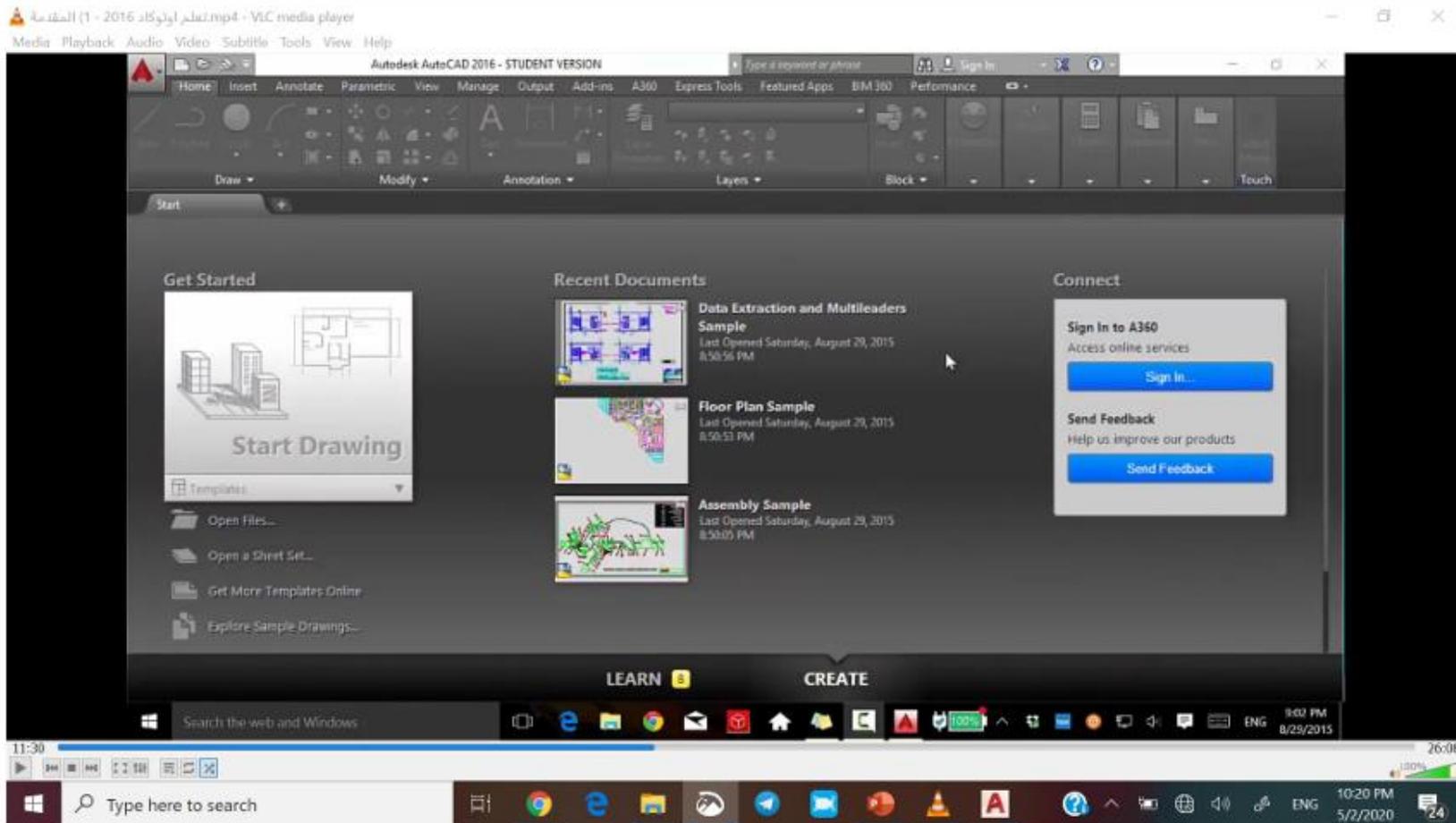


Install Step 10:

If you press on the icon of run you will get this interface

التصويب: الخطوة 10:

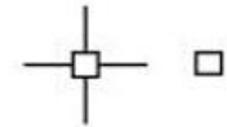
عند الضغط على ايقونة التشغيل ستظهر لك هذه الواجهة



الفأرة (الماوس)

The Mouse

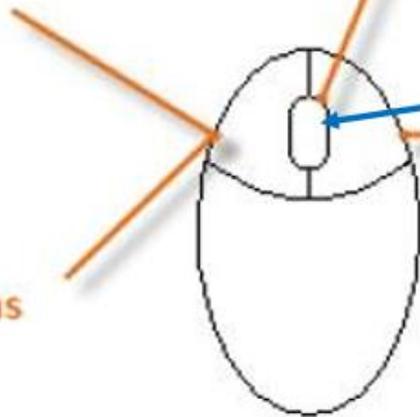
Most people use a mouse as their pointing device, but other devices have equivalent controls.



select objects
 اختر احد الموجودات



pan and zoom
 امسك او قرب او ابعد



specify locations
 حدد الموقع



قوائم مختصرة
 shortcut menus



Scroll
Very Important
Scroll Forward → Zoom in
Scroll Backward → Zoom out
Hold Scroll → Hold

لبكرة: مهمة جدا
 دور البكرة باتجاه الامام -- > تقريب
 لصورة
 دور البكرة باتجاه الخلف -- < ابعاد
 لصورة
 ضغط على البكرة - امسك الرسم و
 حركه أينما تريد



Keyboard

Escape
Stop Command اوقف الامر

Back Space
Delete input
احذف

Delete امسح
Delete Element or more امسح العنصر
Delete Line, Circle, امسح الخط او الدائرة

Tab الانتقال
Important Key
Can be used to Jump from input to input
انتقل من خانة الى خانة



Control Important; many tasks
Ctrl+A : Select All اختر الجميع

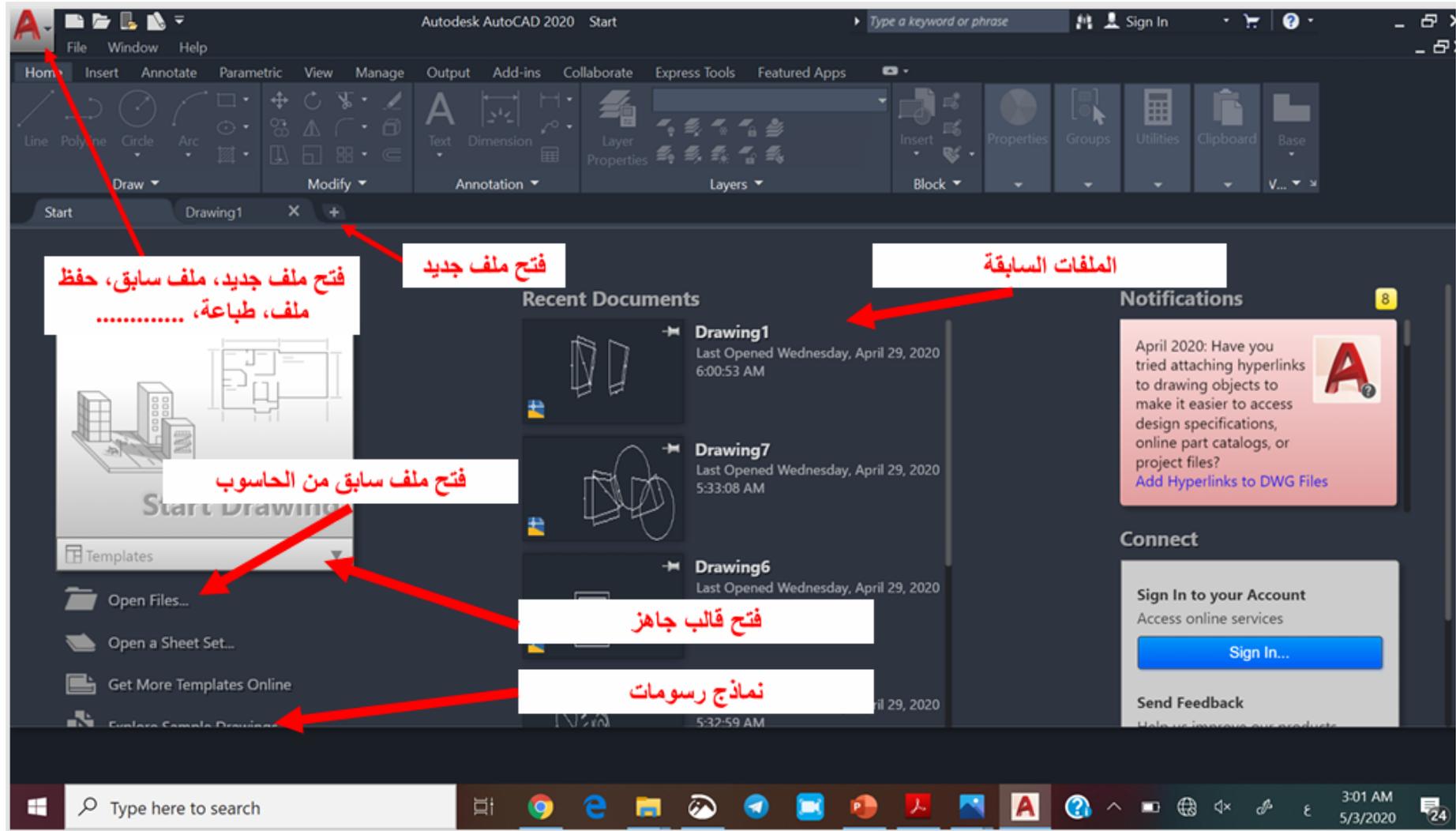
Space
Important; many tasks
عدة مهام

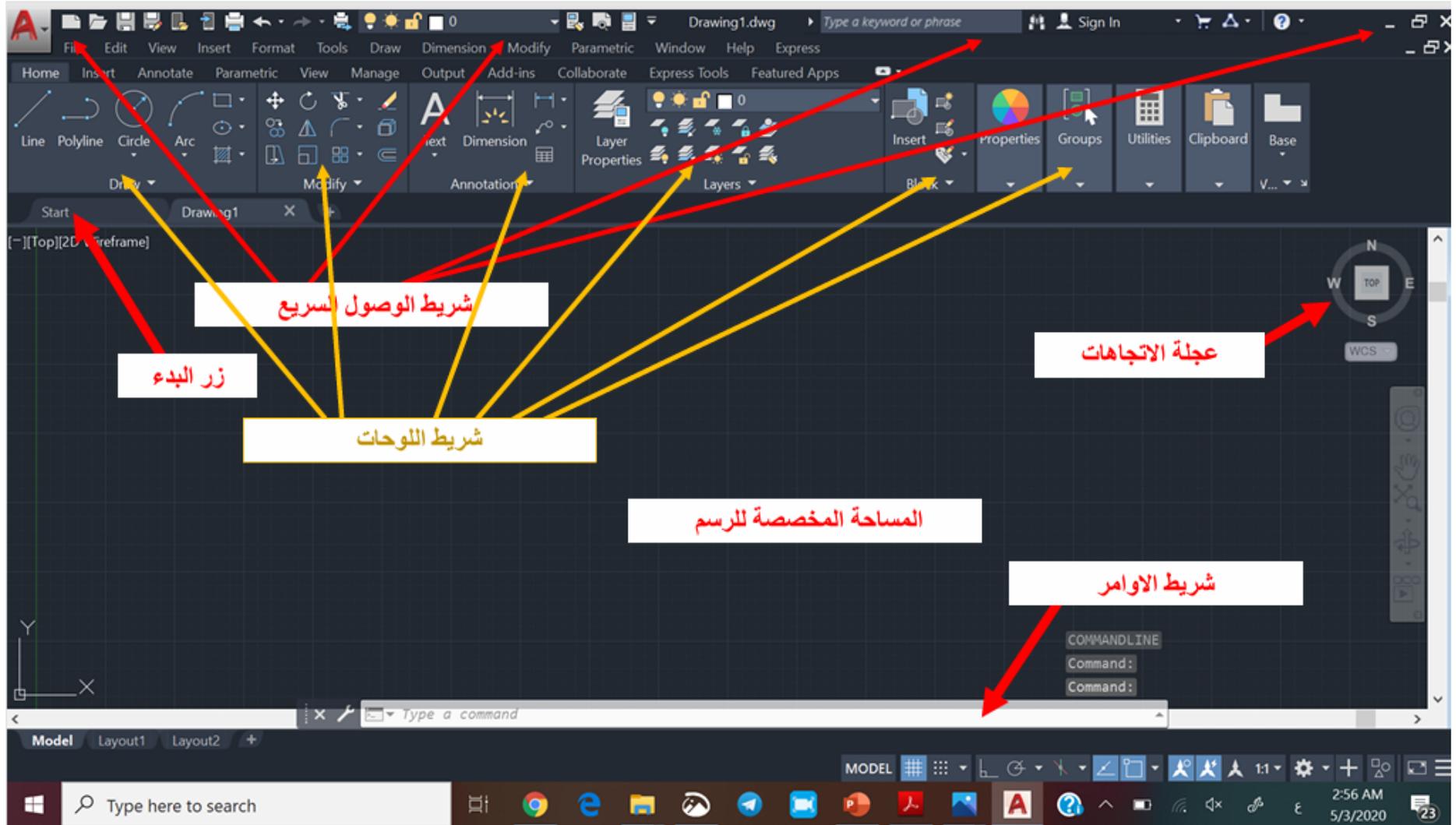
Comma , فارزة
Can be used to Jump from input to input
القفز من ادخال الى اخر

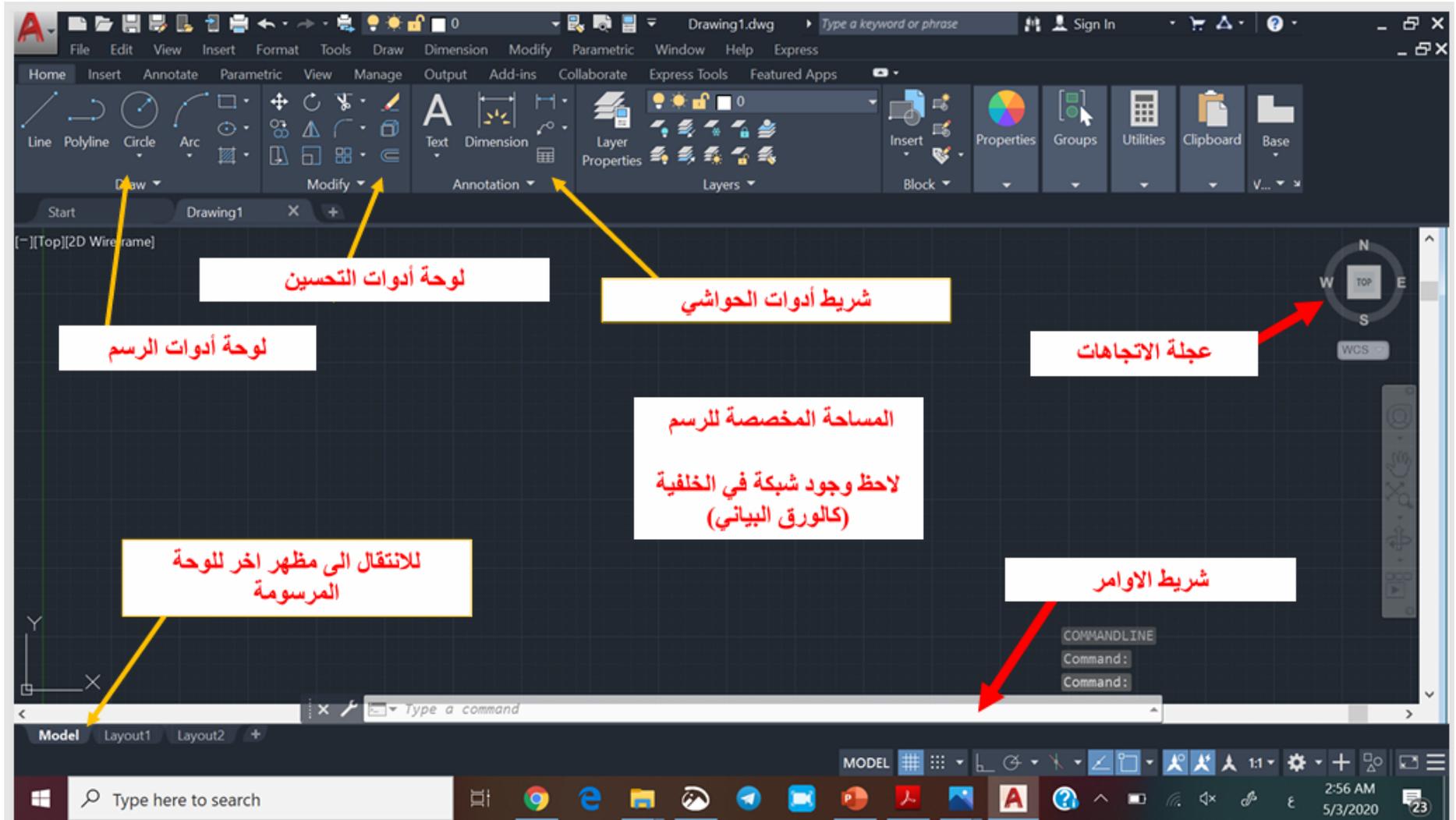
< , اصغر من
Shift+ Comma
عدة مهام Few tasks

> , اكبر من
Shift+ . نقطة
عدة مهام Few tasks

Enter ادخل
Very Important
To Execute any command
لتنفيذ اي امر اضغط ادخل



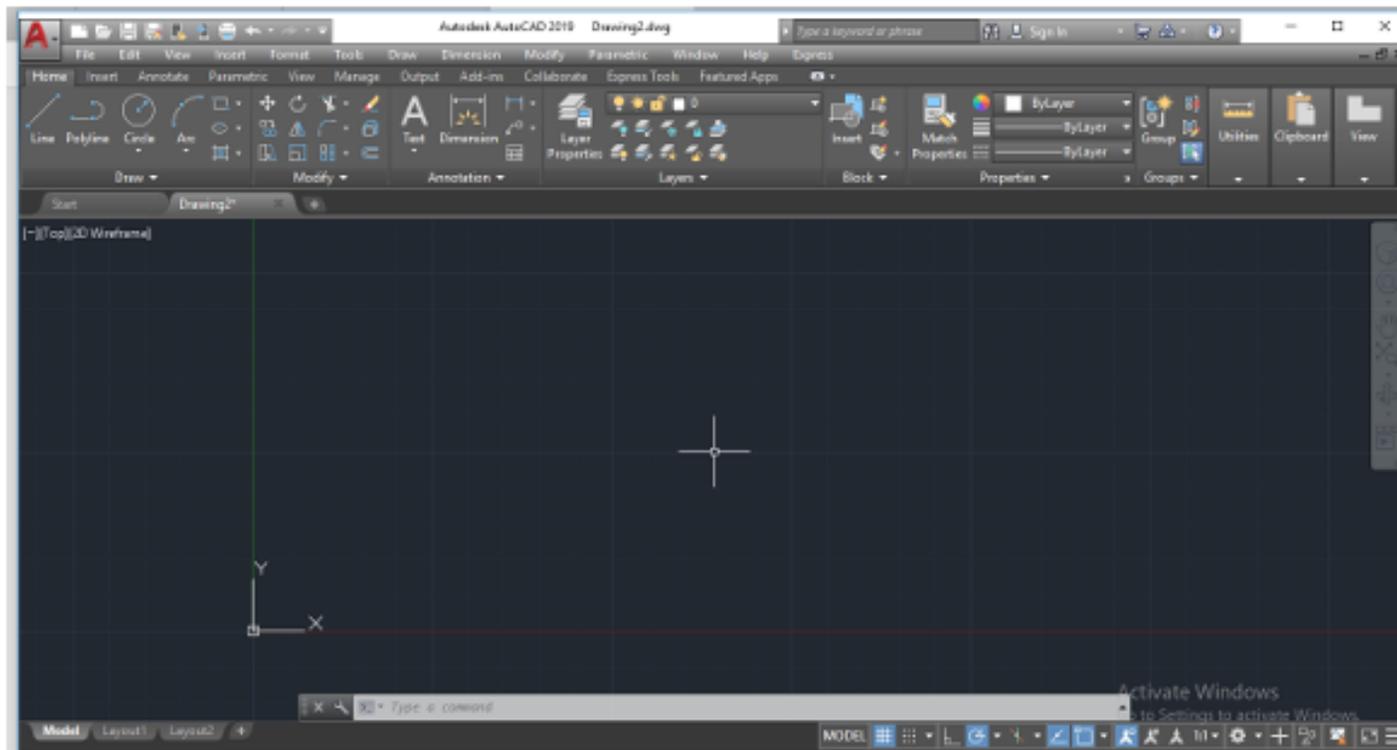






Introduction to the AutoCAD screen

AutoCAD is considered one of the most important graphic and engineering programs that contains two- and three-dimensional dimensions



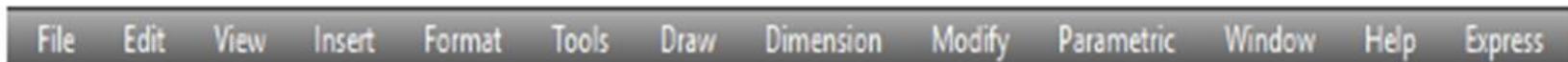


The AutoCAD screen consists from top to bottom of the following elements:

1- Title bar: It contains from right to left the name of the program, the name of the open file, the print option, the save option, the open file option, and the open new file option.



2- Drop-down menu bar: It is located below the title bar and contains the following menus: view - file

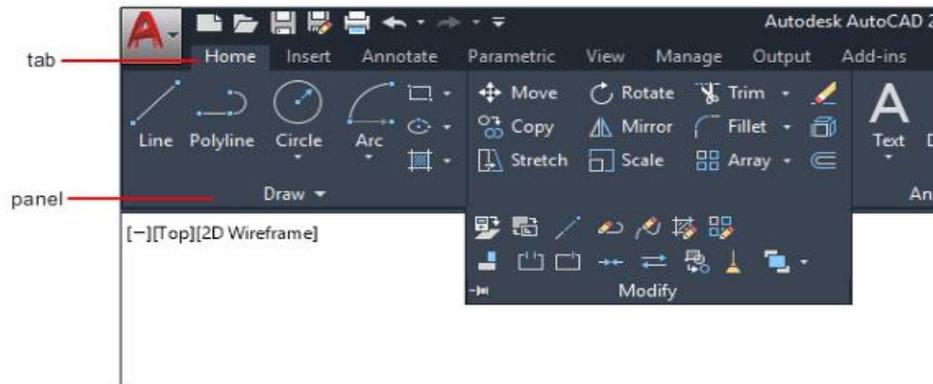




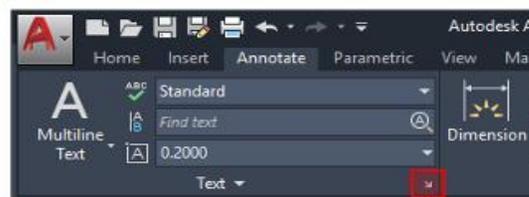
3- Ribbon bar: Located below the drop-down menu bar.



The ribbon consists of a series of tabs organized into panels that contain many of the tools and controls available in the toolbars.



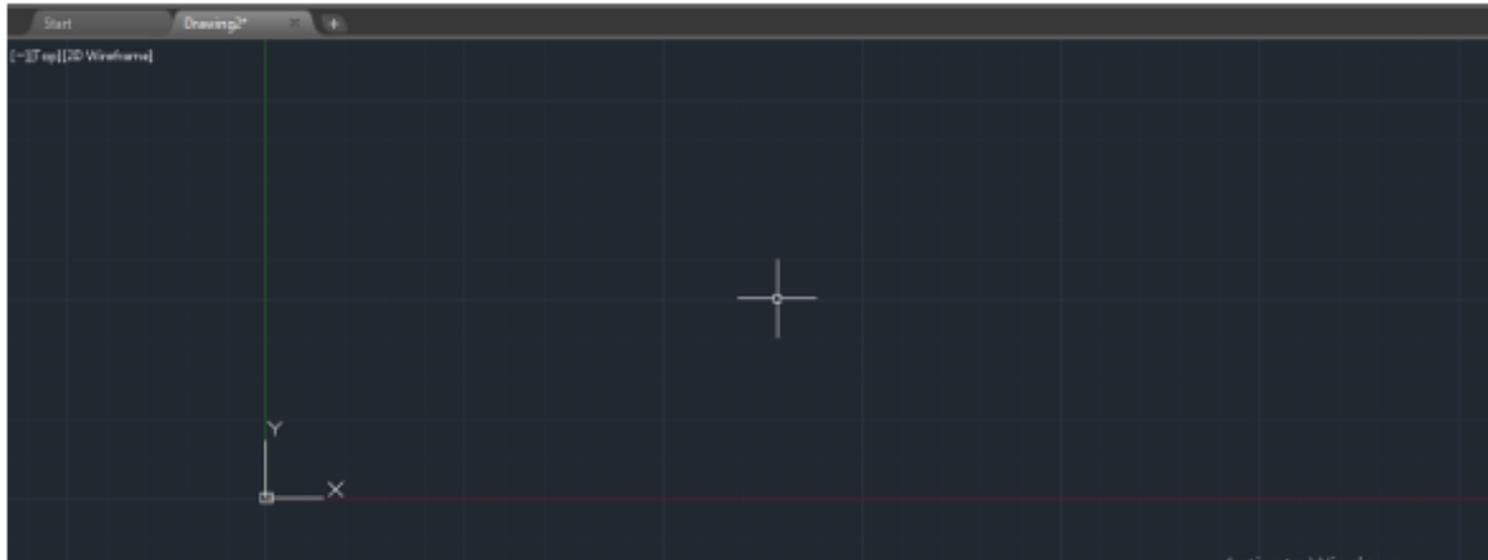
The Ribbon bar provides access to a dialog box related to that panel. The dialog box in question is displayed in the relevant dialog box. Clicking the dialog box launcher, indicated by the arrow icon, in the lower right corner of the panel.



dialog box launcher



4- The black screen: It is the drawing screen through which graphic charts can be inserted.



5- Command bar: which is used to deal with the commands entered into the program.



6- Status bar: Located below the command bar, it contains a set of special commands





2-1 Methods of executing commands in AutoCAD

We have two main ways to execute commands in AutoCAD.

1- The first method: via the command input bar, where the command is written and then (Enter) is pressed. For example, to draw a straight line, we write the word (line) in the command bar and then press (Enter). The line is drawn and used on the screen.

2- The second method: We go to the ribbon bar and choose the Home menu, then choose Line.

Important instructions:

We must observe the following instructions for the purpose of easy execution of commands in the AutoCAD program and to give accurate and correct results in the work.

1- If we execute any command and want to terminate this command, we press (Escape).

2- If we want to repeat any command that has been used, we press the (Enter) button, and the command name appears in the bar.

Commands.

3- If you press the (F2) button, the command bar will appear on the entire screen, and when you press it again, the command bar will return to its normal size at the bottom of the screen.



Remarks

Units

No Units Are Required In AutoCAD

The Scale:

AutoCAD does not care about units and the user must decide which units of measurement he uses, but the unit used in a single drawing must be unified.

Drawing scale

The suitable and common Scale is 1:1

The appropriate and common drawing scale in AutoCAD is 1:1.

This scale is during drawing

But you can use the appropriate drawing scale for printing and according to the size of the printing paper.