

**Introduction to AutoCAD**

**AutoCAD Basics.**

**How to install AutoCAD**

**Run AutoCAD for the first  
time**

**Using the mouse and keyboard**



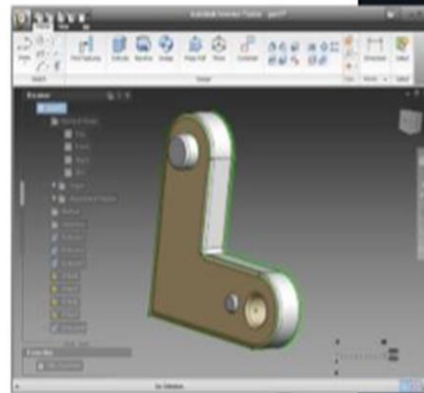
## What is CAD?

- Computer Aided Drafting
- Autodesk is the most popular drawing program
- Many student versions available for free online at [students.autodesk.com](https://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>

**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**

AutoCAD Free Download

www.autodesk.com/education/free-software/autocad#

AUTODESK

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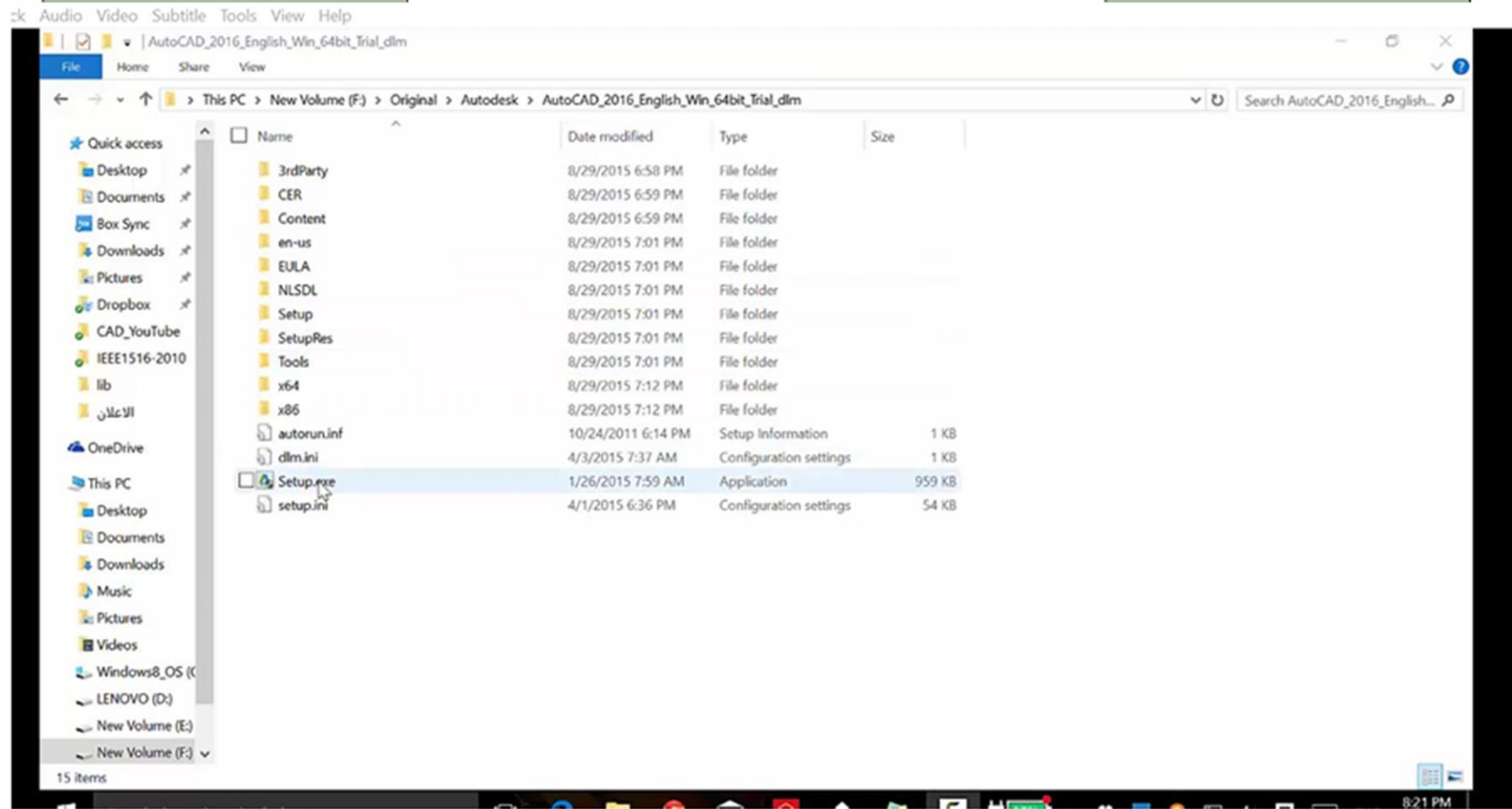
FEEDBACK

8:08 PM 8/28/2015



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

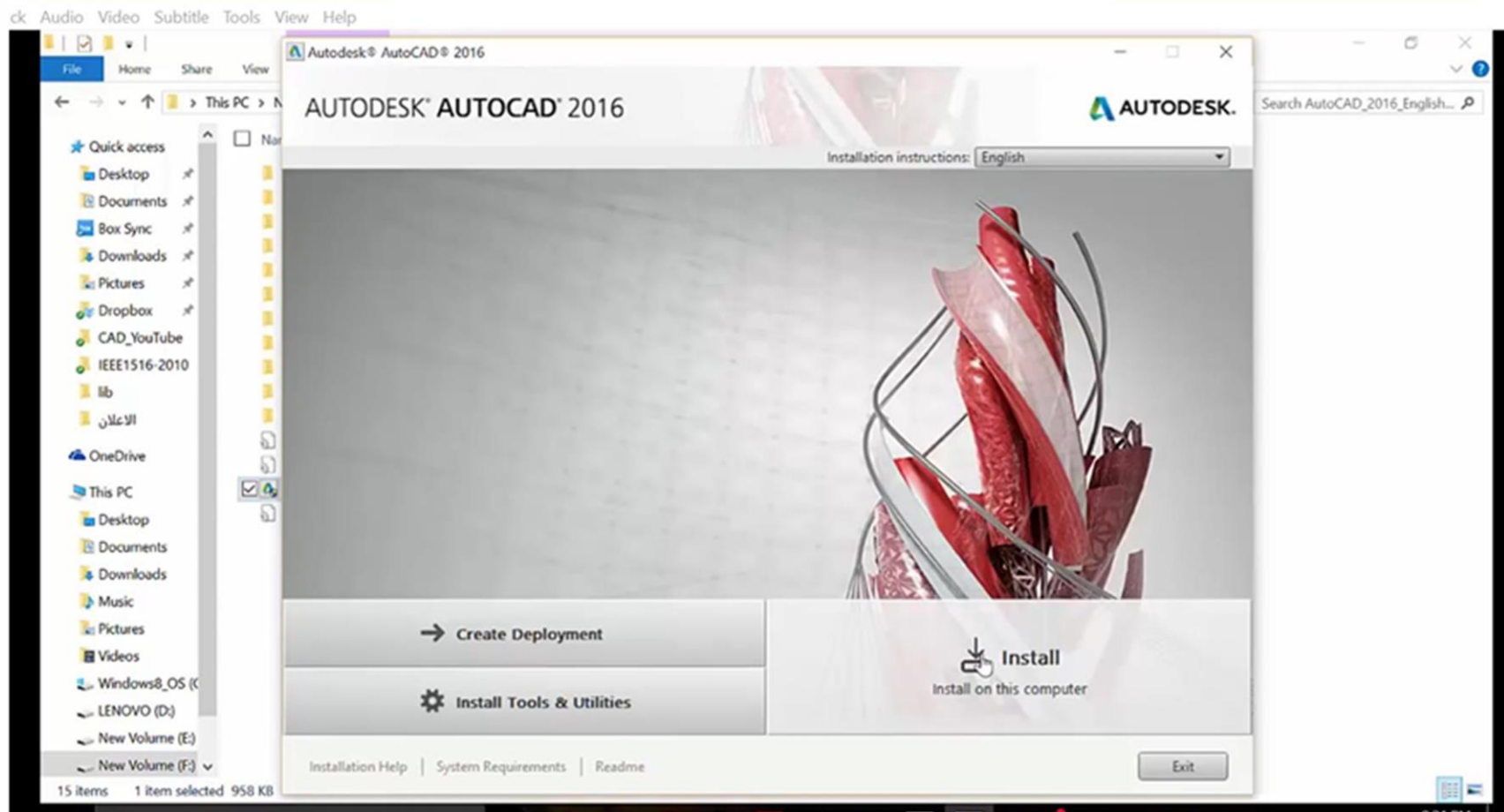
**التنصيب: الخطوة 2:**  
**اضغط على ايقونة تنصيب**





**Install Step 3:**  
**Press Install**

**التنصيب: الخطوة 3:**  
**اضغط نصب**



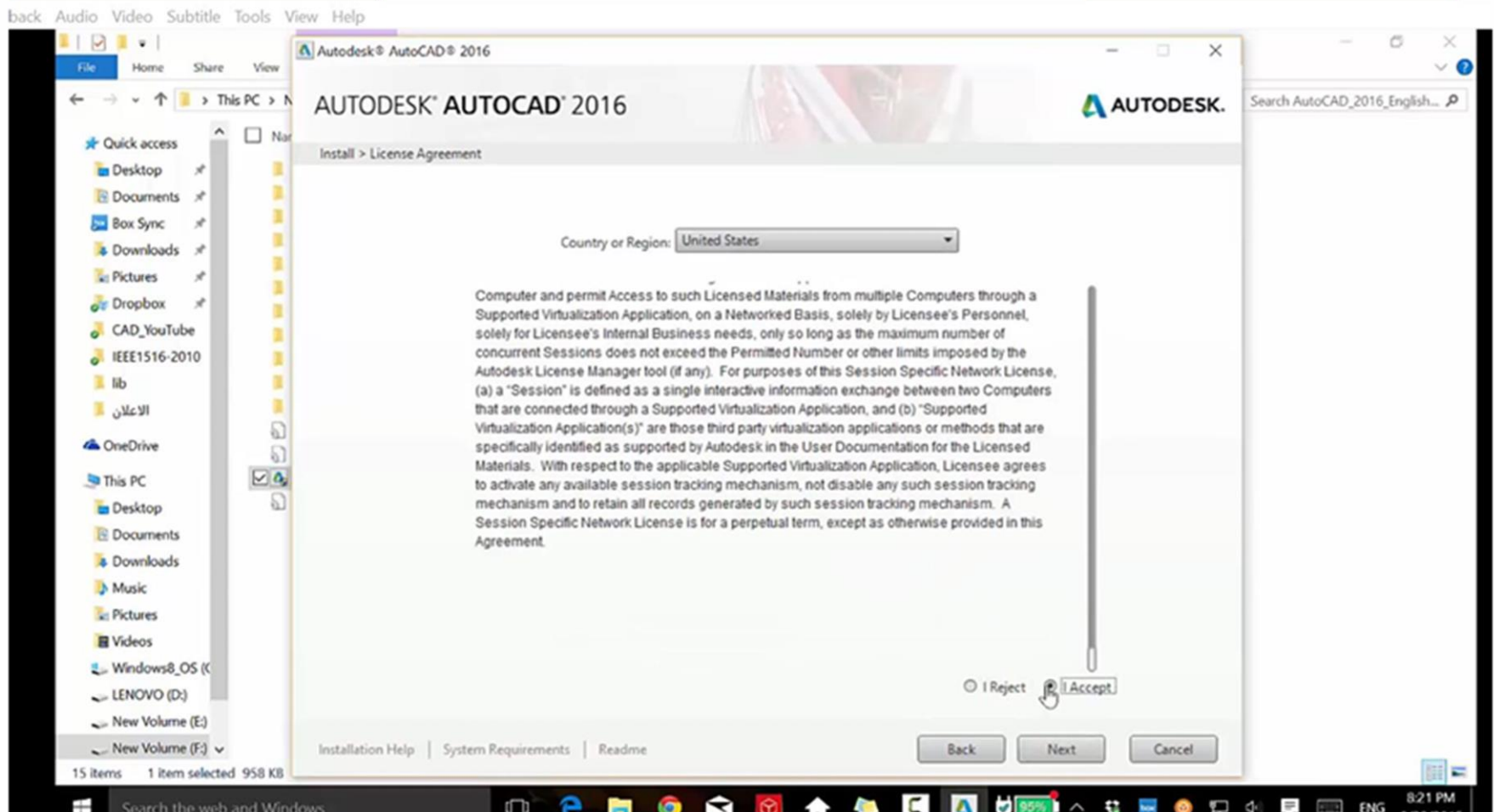


#### Install Step 4:

Select Accept

التنصيب: الخطوة 4:

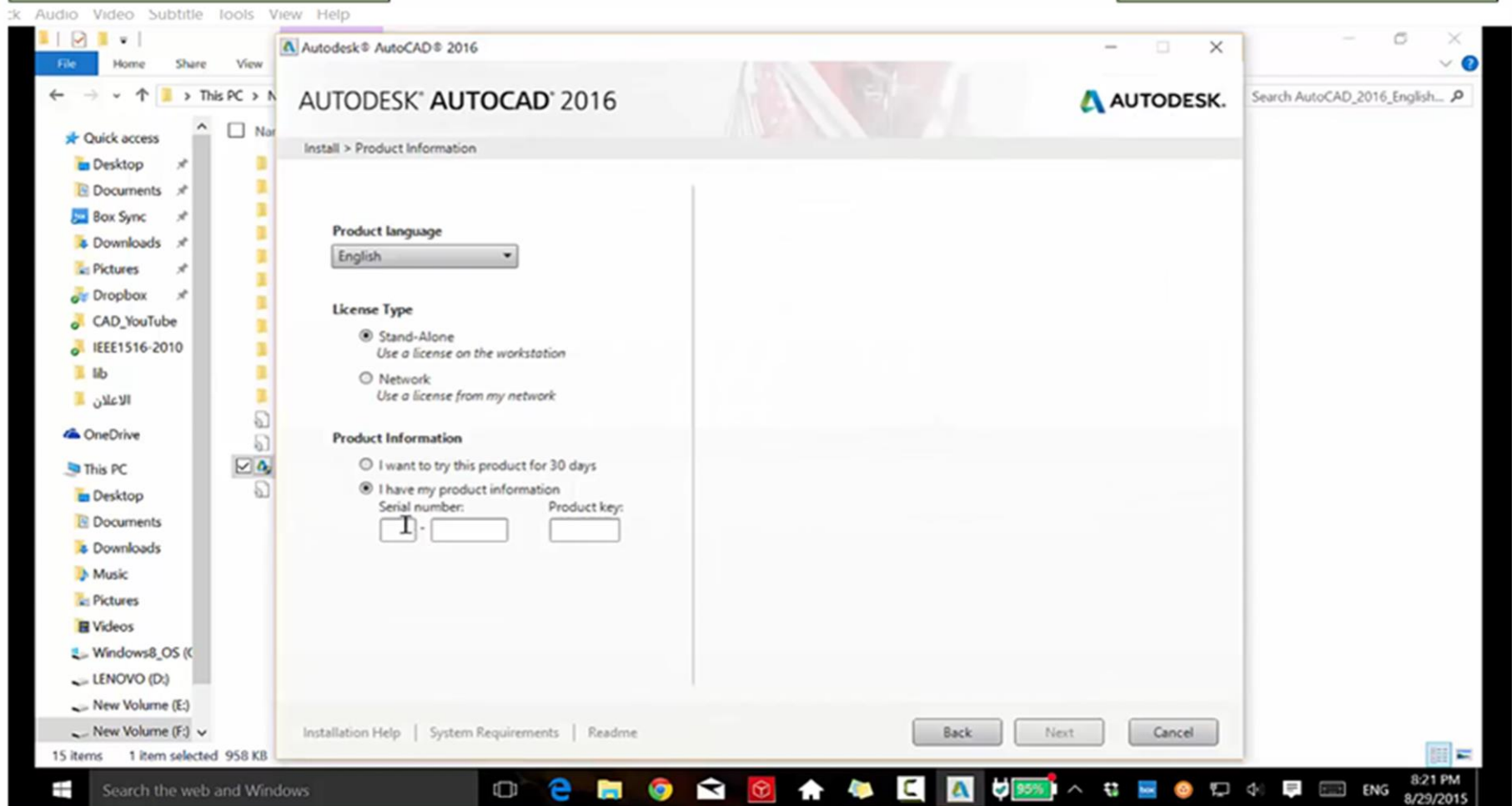
اختر موافق





**Install Step 5:**  
**Input Serial Number**

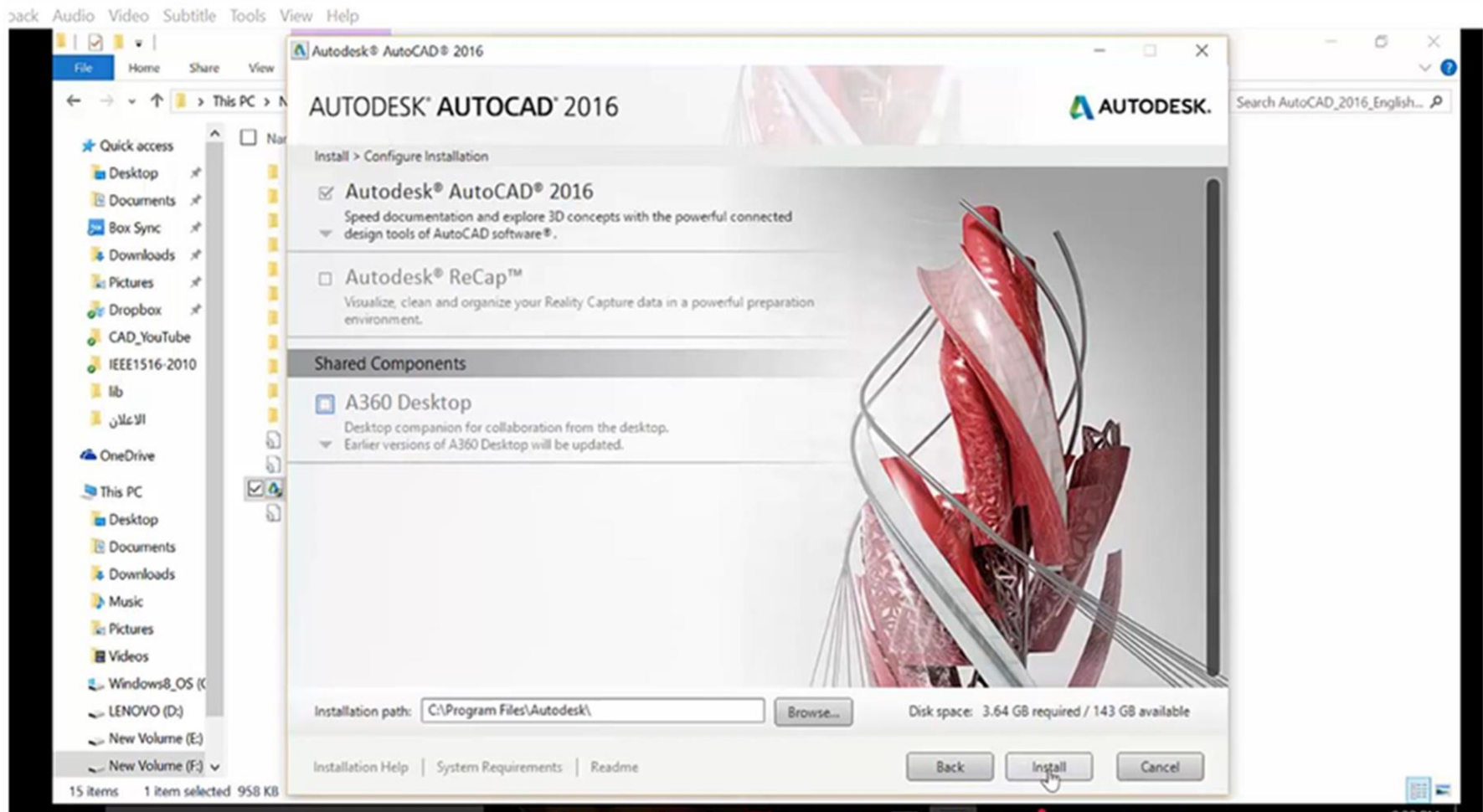
**التنصيب: الخطوة 5:**  
**ادخل الرقم التسلسلي**





**Install Step 6:**  
**Select Autodesk**

**التنصيب: الخطوة 6:**  
**اختر اوتوديسك**





### Install Step 7:

Wait until Completion of installation

### التنصيب: الخطوة 7:

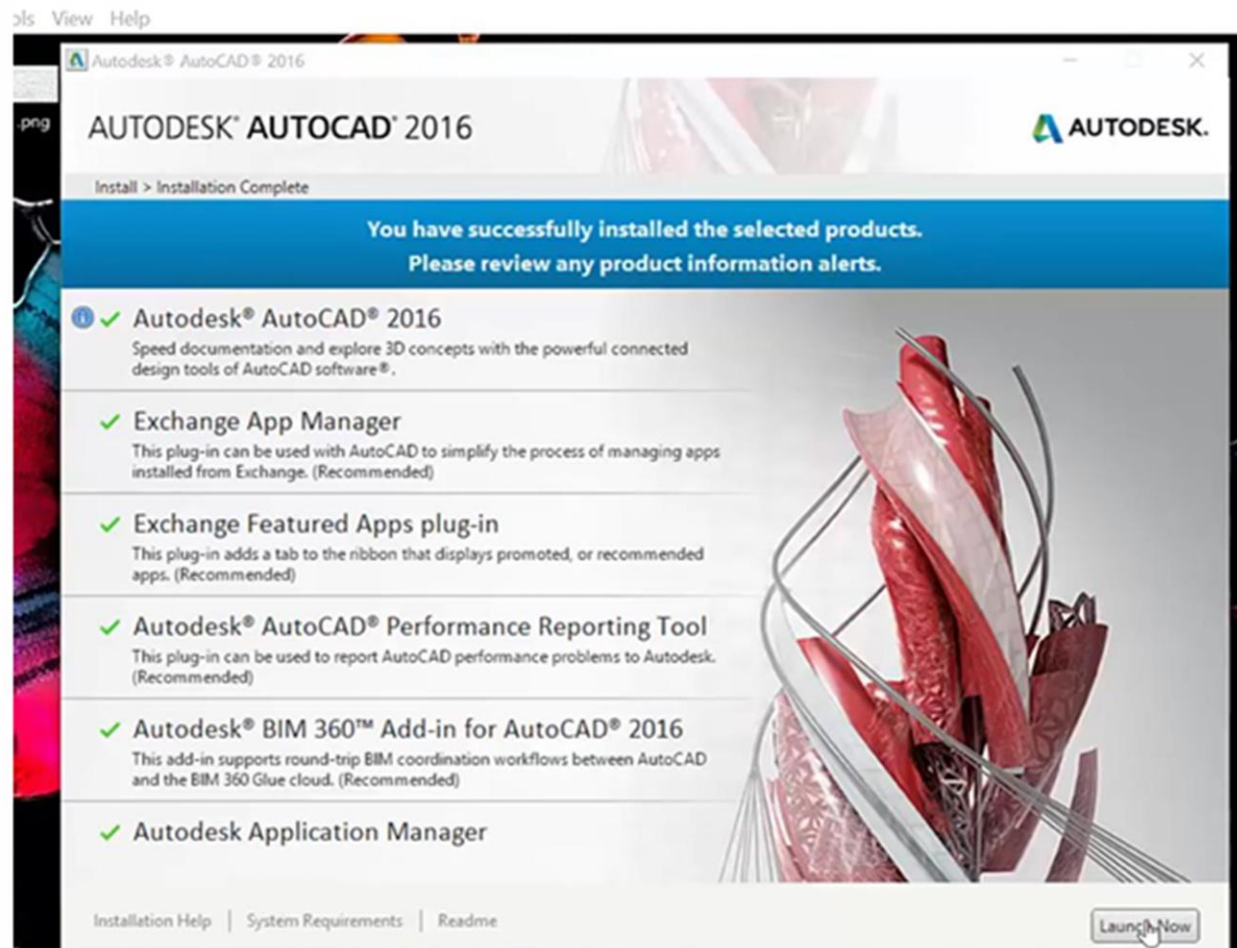
انتظر اكتمال التنصيب





**Install Step 8:**  
**Press Launch Now**

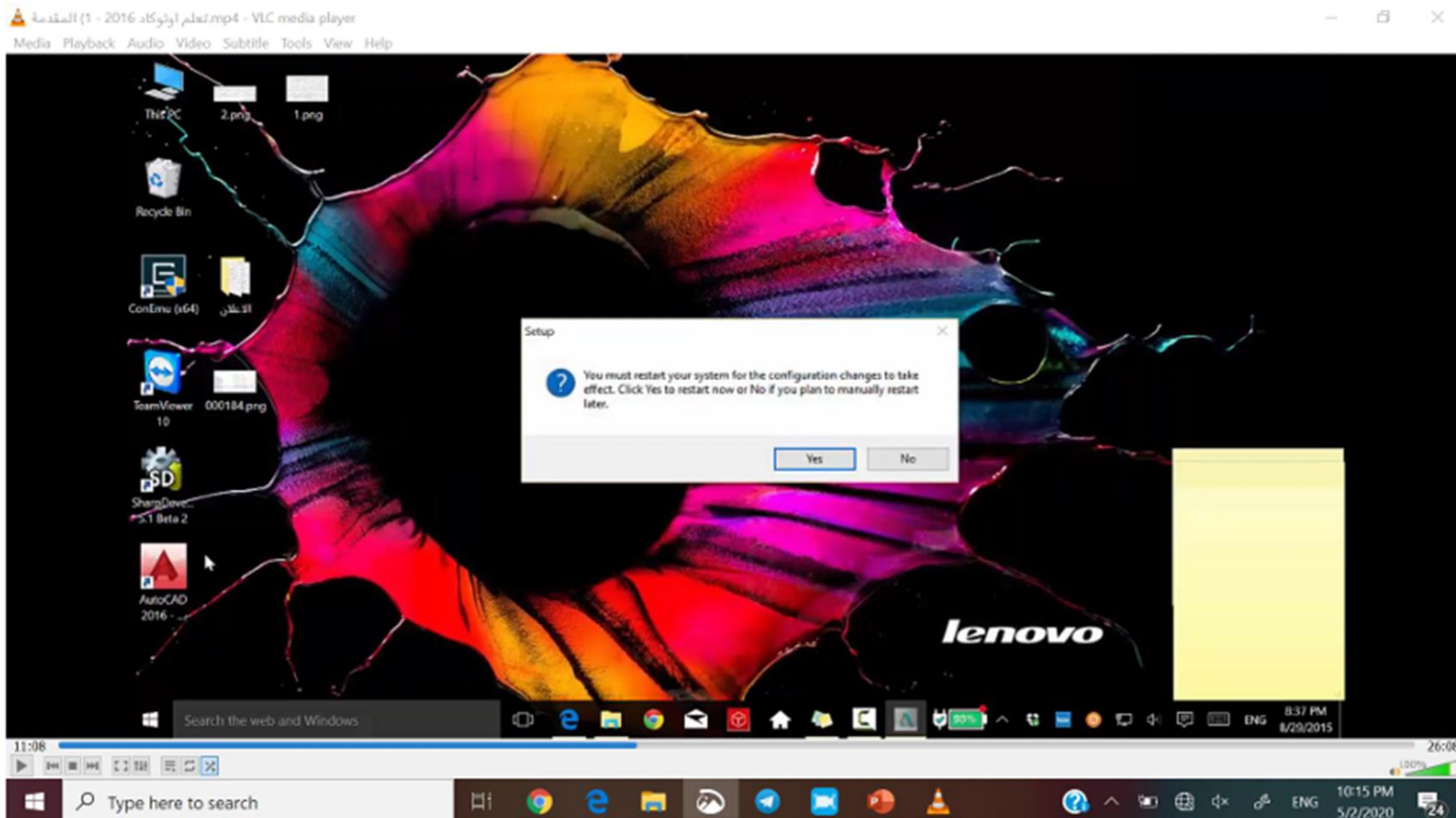
**التنصيب: الخطوة 8:**  
**اضغط اطلق الان**





**Install Step 9:**  
**Restart your computer**

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



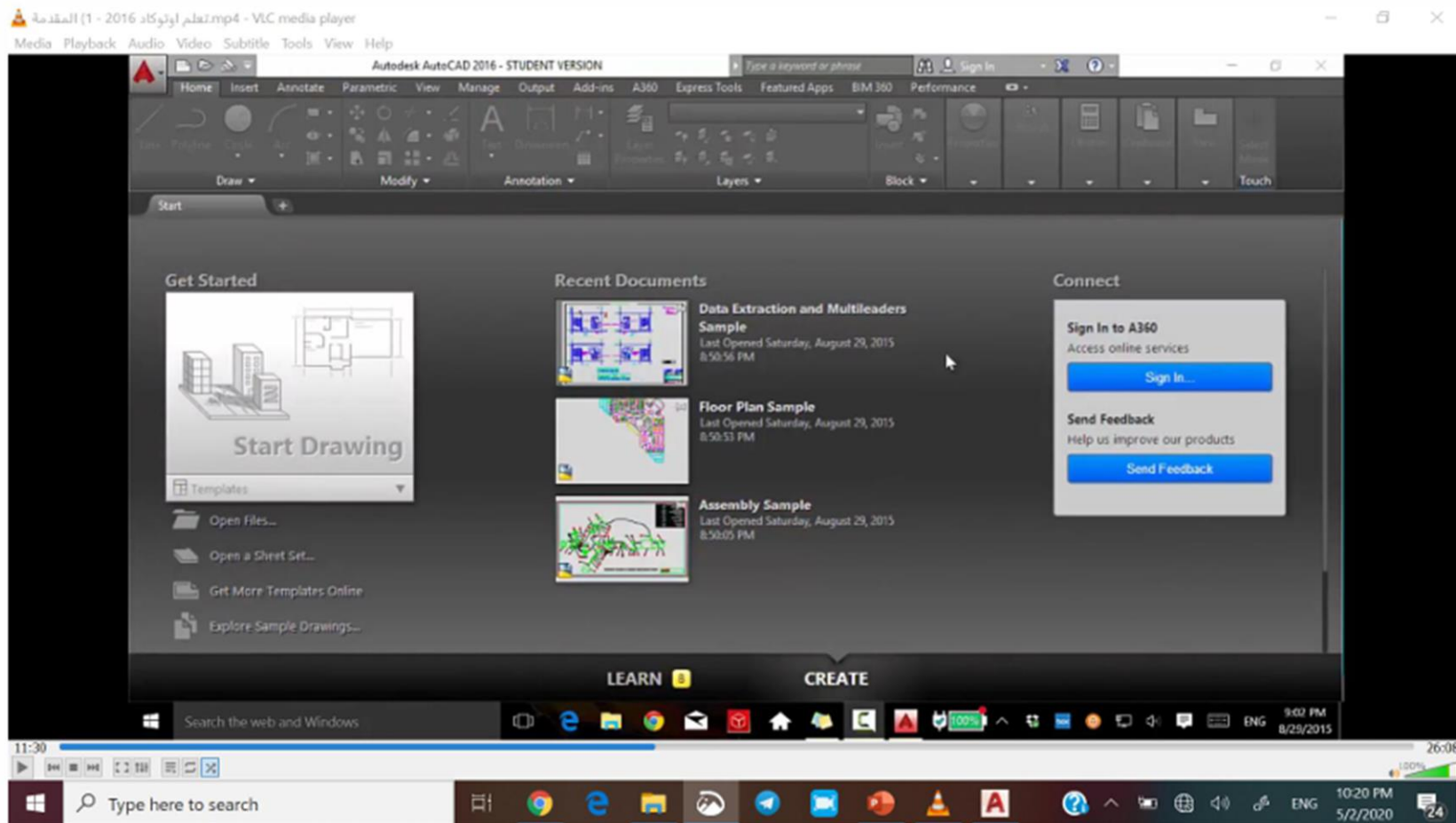


### Install Step 10:

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

### التثبيت: الخطوة 10:

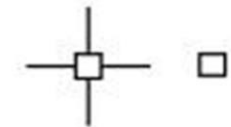
عند الضغط على ايقونة التشغيل ستظهر لك هذه الواجهة



## الفأرة (الماوس)

### The Mouse

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



**select objects**  
اختر احد الموجودات

**specify locations**  
حدد الموقع



**pan and zoom**  
امسك او قرب او ابعد

**قوائم مختصرة**  
**shortcut menus**



### Scroll

#### Very Important

**Scroll Forward → Zoom in**

**Scroll Backward → Zoom out**

**Hold Scroll → Hold**

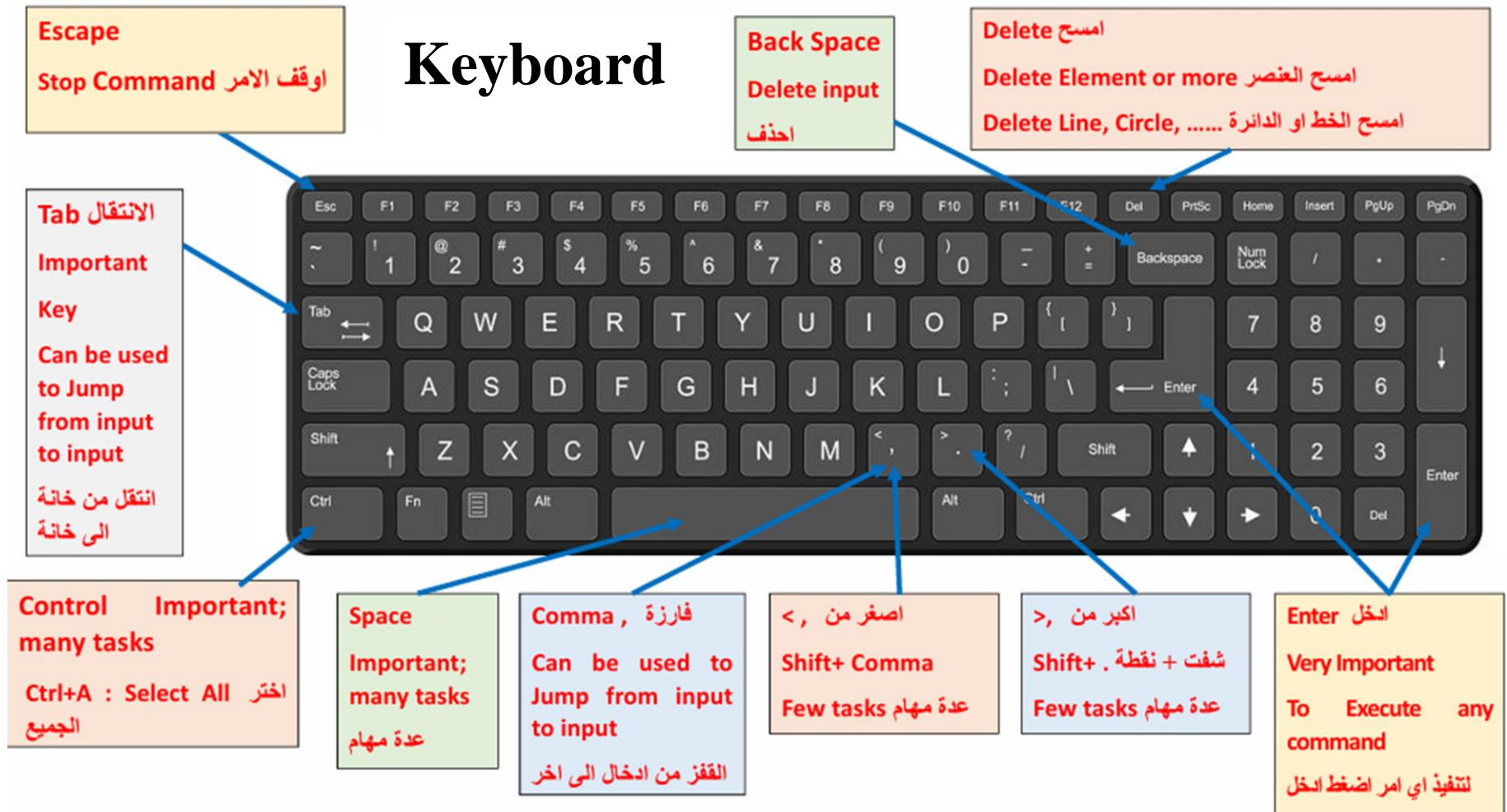
البكرة: مهمة جدا

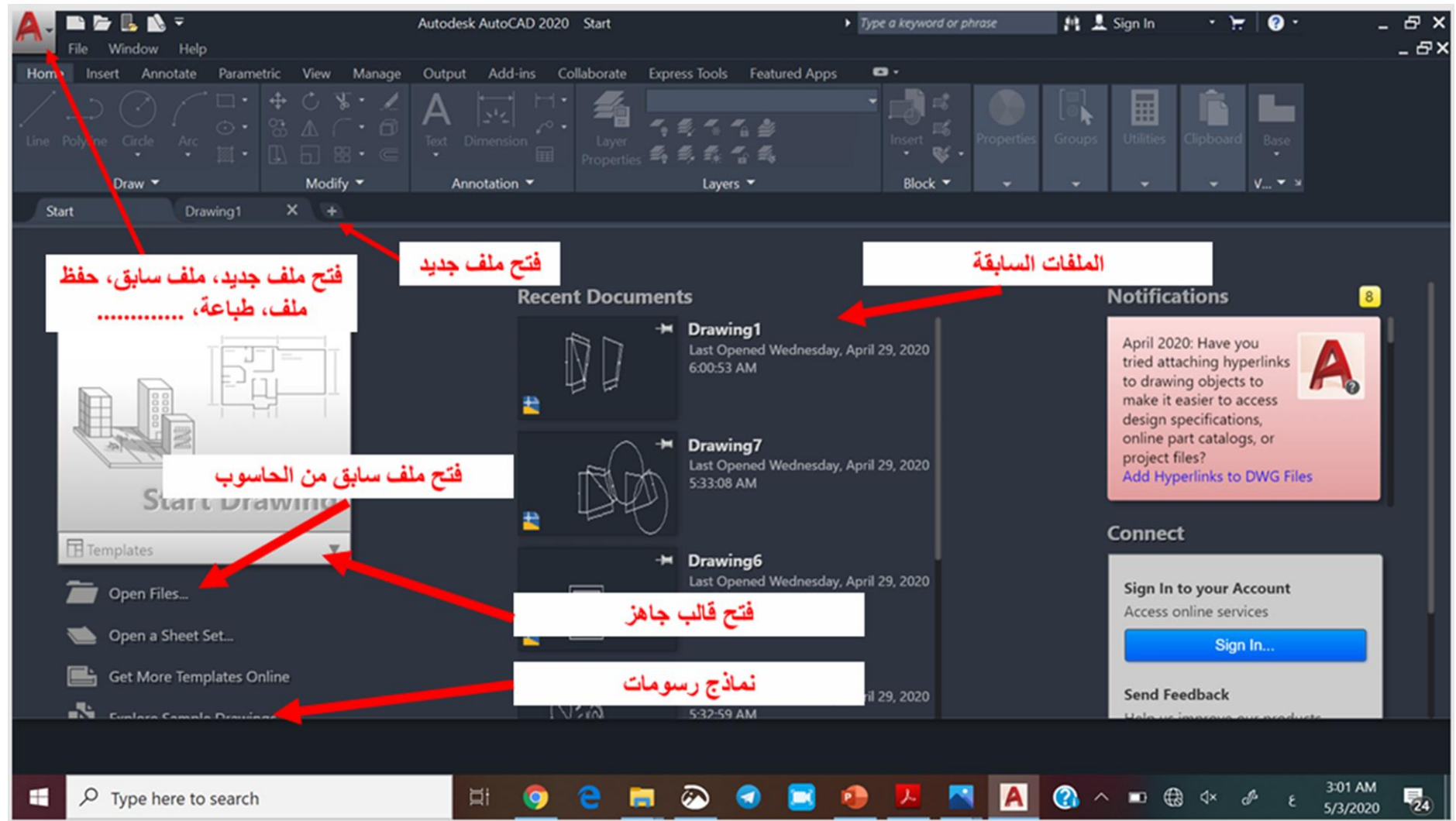
دور البكرة باتجاه الامام --> تقريب الصورة

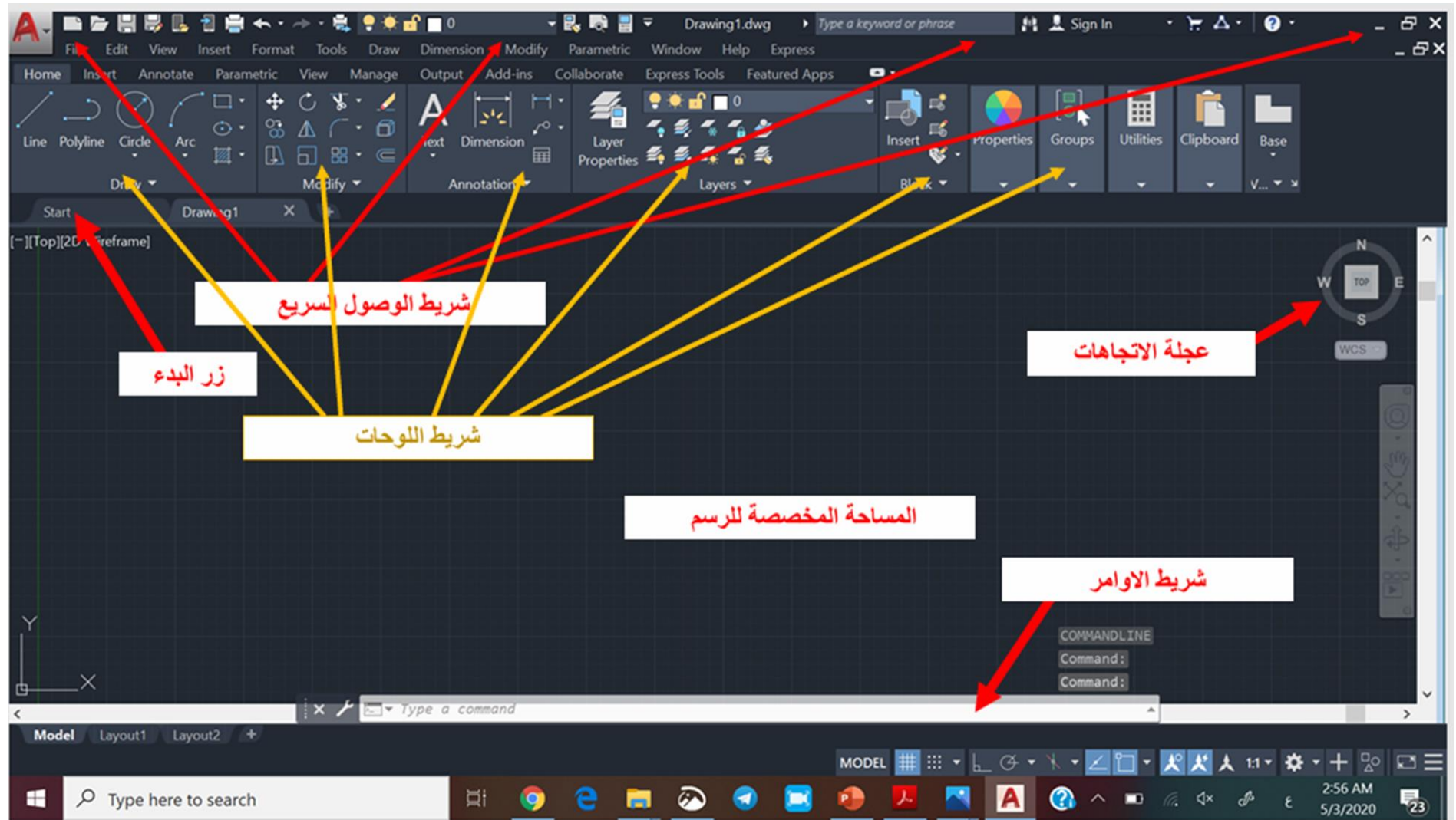
دور البكرة باتجاه الخلف --> ابعاد الصورة

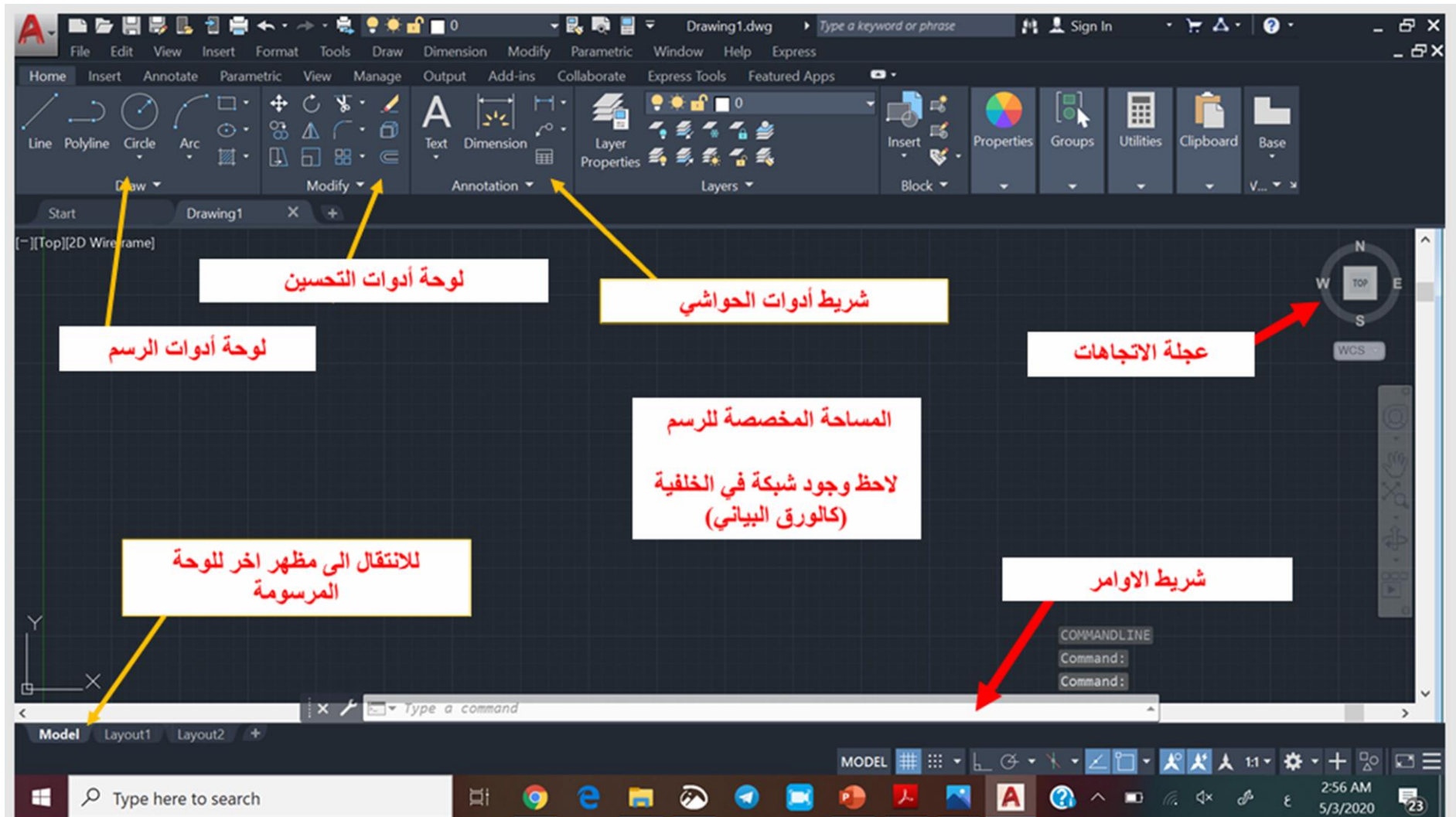
اضغط على البكرة - امسك الرسم و حركه أينما تريد

# Keyboard





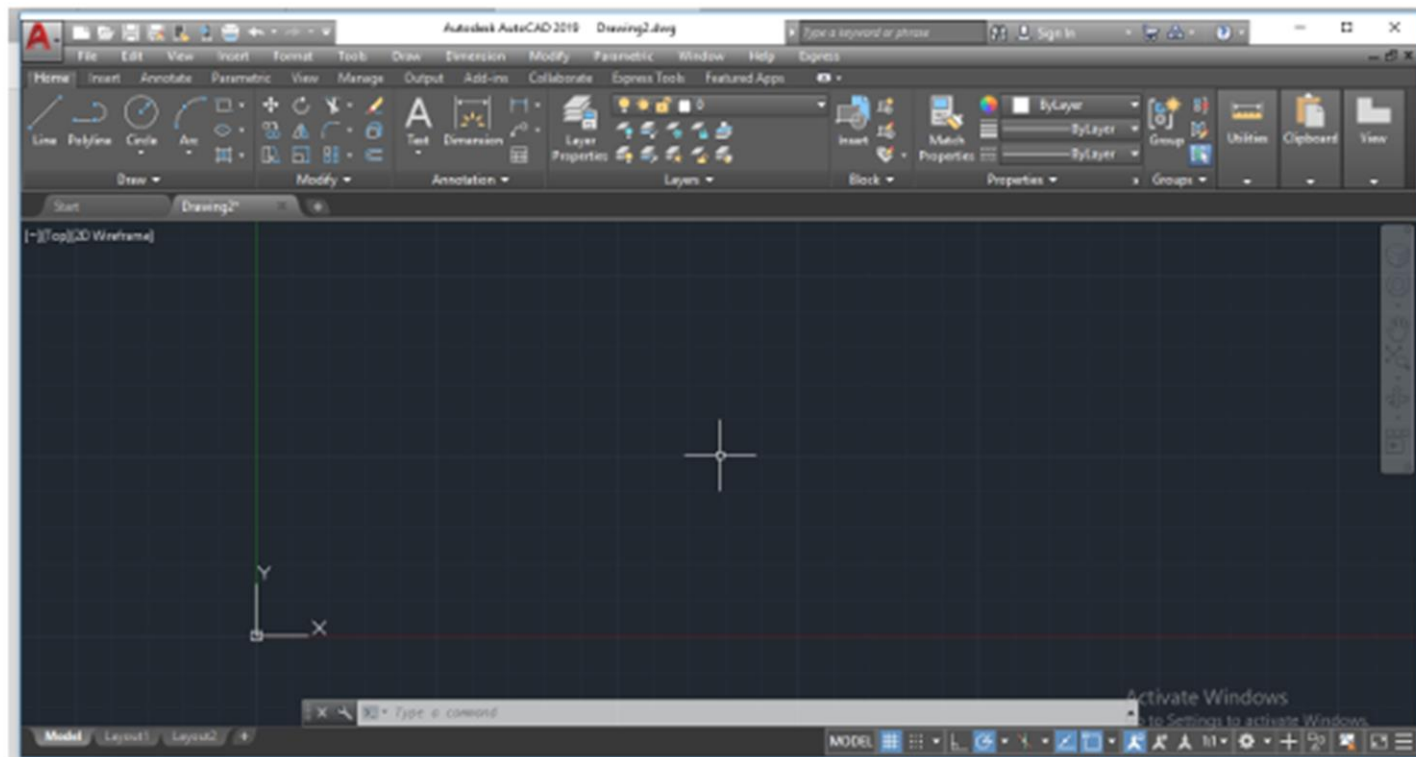






## Introduction to the AutoCAD screen

**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:**

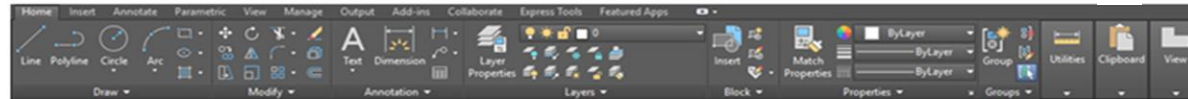
**1- Title bar: It contains from right to left the name of the program, the name of the open file, the print option, the save option, the open file option, and the open new file option.**



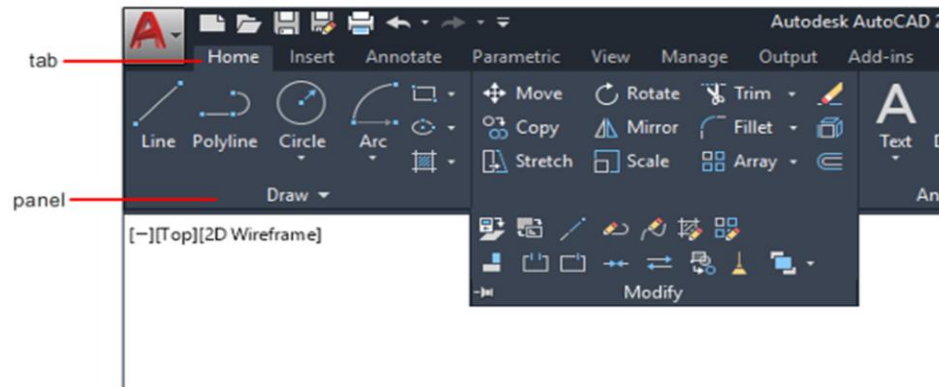
**2- Drop-down menu bar: It is located below the title bar and contains the following menus: view - file**



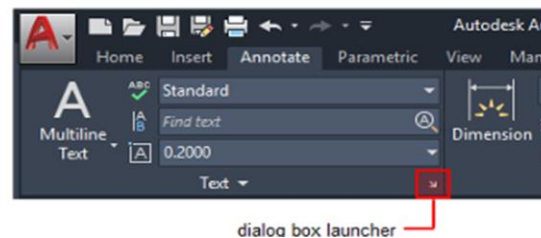
### 3- Ribbon bar: Located below the drop-down menu bar.



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

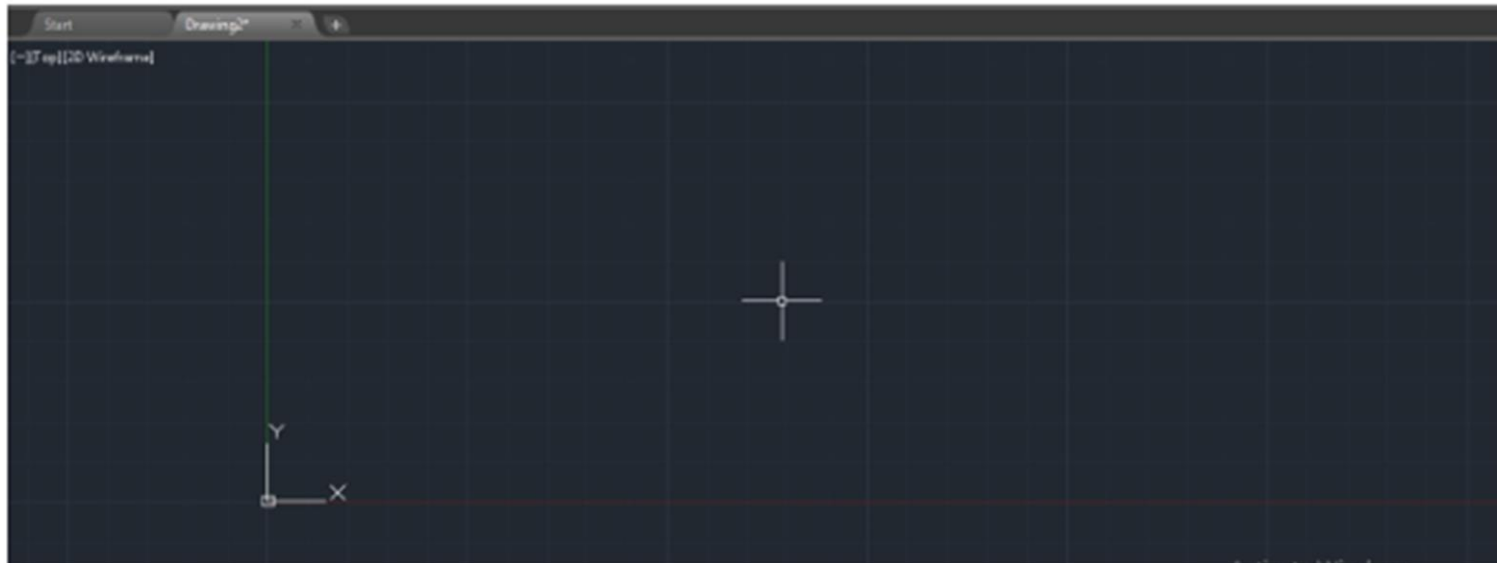


The Ribbon bar provides access to a dialog box related to that panel. The dialog box in question is displayed in the relevant dialog box. Clicking the dialog box launcher, indicated by the arrow icon, in the lower right corner of the panel.





**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.**