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المرحلة : الاولى

سجل التجارب

وزارة التعليم العالي والبحث العلمي

كلية المستقبل الجامعة

مختبر/ الكترولنيك رقمي

## Experiment No.:- 1

Experiment name: - Introduction to Multisim

What is Multisim?

It consists of tools that assist you in carrying out the major steps in circuit design.

Objective: -

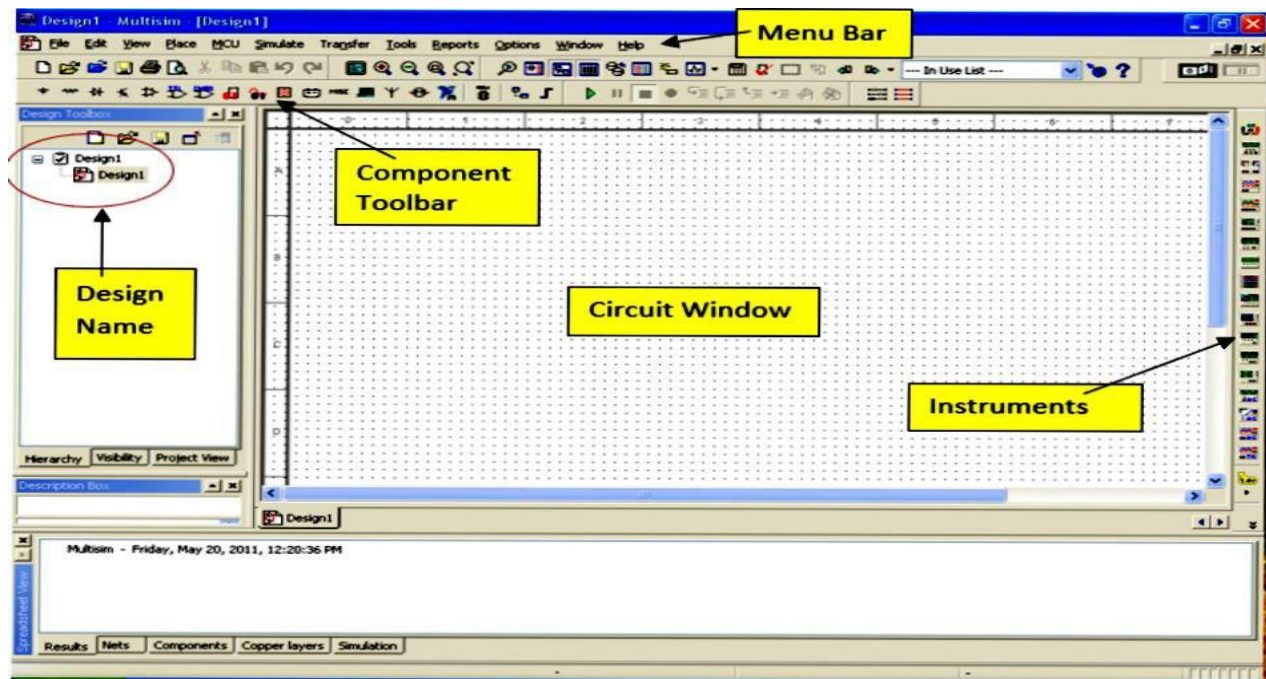
- Learn how to write a good lab report
- Help students become familiar with the basic features of Multisim, a circuit simulation software tool

Opening and Saving a File

When opening Multisim a blank file opens on the workspace called Design1

\*Complete the following steps to save the file with a new name:

- 1-Select File>>Save As to display a standard Windows Save dialog .
- 2-Navigate to the location where you wish the file to reside .
- 3-Select a filename, and click the Save button .



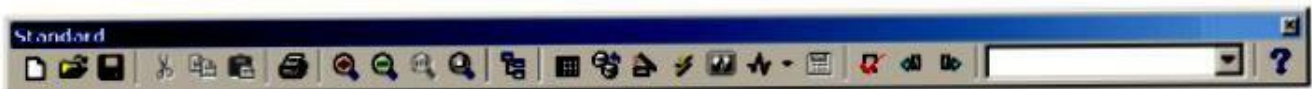
- 1-**The Menu Bar** is where you find commands for all functions.
- 2- **The Design Toolbox** lets you navigate through the different types of files in a project (schematics PCBs, reports), view a schematic's hierarchy and show or hide different layers.
- 3-**The Component toolbar** contains buttons that let you select components from the Multisim databases for placement in your schematic.
- 4-**The Standard toolbar** contains buttons for commonly-performed functions such as Save, Print, Cut and Paste .
- 5-**The View toolbar** contains buttons for modifying the way the screen is displayed.
- 6-**The Simulation toolbar** contains buttons for starting, stopping, and other simulation functions.
- 7-**The Main toolbar** contains buttons for common Multisim functions.
- 8- **The In Use List** contains a list of all components used in the design.
- 9- **The Instruments toolbar** contains buttons for each instrument.
- 10- **Scroll Left-right** is to ensure ease in handling larger designs.
- 11- **The Circuit Window (or workspace)** is where you build your circuit.
- 12- **Active tab** indicates the current active circuit window.

### **Placing Components**

- \*When placing RLC components, type the value of the device that you want to place in the field at the top of the Component list
- \*Ctrl-R will change the orientation of the selected component
- \*When a component is on the workspace and you want to place the same component again, highlight it and select Edit>>Copy, then Edit>>Paste You can also select it from the In Use List and click to place it on the workspace
- \*When placing a AC or DC voltage source: double-click on it to change the Voltage (PK) to desired amount then click OK




# Standard Toolbar

The **Standard** toolbar contains buttons for commonly-performed functions.



The buttons in the **Standard** toolbar are described below:







Button	Description
	<b>New</b> button. Creates a new circuit file.
	<b>Open</b> button. Opens an existing circuit file.
	<b>Save</b> button. Saves the active circuit.
	<b>Cut</b> button. Removes the selected elements and places them on the Windows clipboard.
	<b>Copy</b> button. Copies the selected elements and places them on the Windows clipboard.
	<b>Paste</b> button. Inserts the contents of the Windows clipboard at the cursor location.
	<b>Print Circuit</b> button. Prints the active circuit.
	<b>Increase Zoom</b> button. Magnifies the active circuit.
	<b>Decrease Zoom</b> button. Decreases the magnification of the active circuit.
	<b>Zoom 100%</b> button. Shows the circuit in the workspace at its normal size.
	<b>Fit to Page</b> button. Displays the entire active circuit in the workspace.
	<b>Toggle Project Bar</b> button. Switches the Project Bar on and off. For details, see "4.9 Project Management" on page 4-52. This function is hidden when the simplified version option is selected. For details, see "14.4.1.2 Simplified Version" on page 14-9.

Button	Description
	<b>Forward Annotate</b> button. For details, see "11.3 Forward Annotation" on page 11-4. This function is hidden when the simplified version option is selected. For details, see "14.4.1.2 Simplified Version" on page 14-9.
	<b>In Use List.</b> Click on the arrow to display a list of the active circuit's components. For details, see "3.5.3 Using the In Use List" on page 3-14.
	<b>Help</b> button. Launches the help file.

## Component Toolbar



The buttons in the **Component** toolbar are described below. Each button will launch the place component browser (**Select a Component** browser) with the group specified on the button pre-selected. For details, see "3.5.1 Using the place component browser" on page 3-7.

Button	Description
	<b>Source</b> button. Selects the Source components group in the browser.
	<b>Basic</b> button. Selects the Basic components group in the browser.
	<b>Diode</b> button. Selects the Diode components group in the browser.
	<b>Transistor</b> button. Selects the Transistor components group in the browser.
	<b>Analog</b> button. Selects the Analog components group in the browser.
	<b>TTL</b> button. Selects the TTL components group in the browser.