1 Drawing systems' circuits

Systems are modelled by joining subsystem blocks together.

Using the Gallery

You can add subsystem blocks to your designs by using the Gallery.

1 Click on the Gallery button.

2 The Gallery window will then appear.

You will see a series of buttons called **input**, **process**, **output** and so on.

Click on one of these buttons to see the subsystem blocks in that group.

You can always click on the Home button to go back to the menu.

Adding subsystem blocks

Once you can see the subsystem block you want in the Gallery:

1 Move the mouse over the block in the Gallery. Press and hold down the left mouse button.

2 With the left mouse button still held down, move the mouse to drag the block onto the circuit.

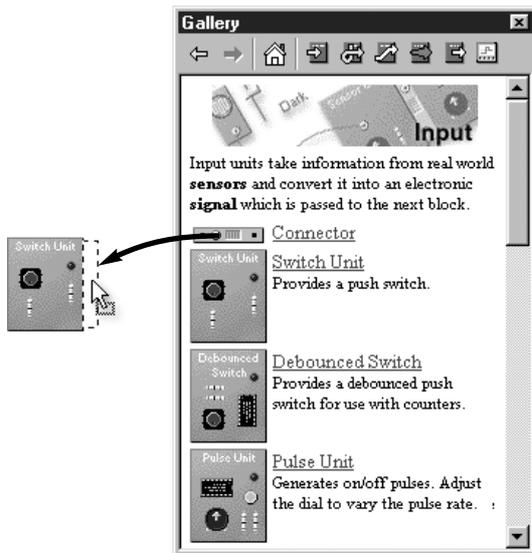**3** Finally, release the mouse button when the subsystem block is in the required position.
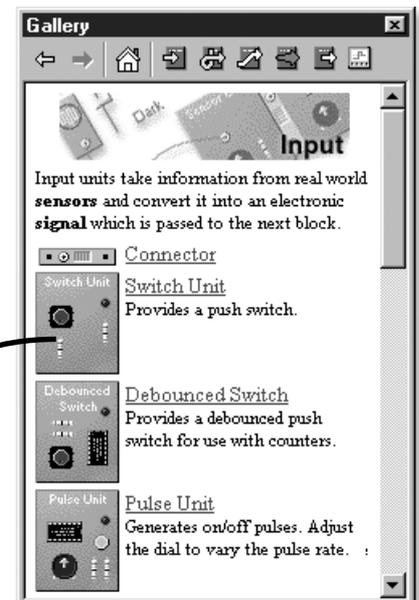
The subsystem blocks must be now linked together with Connectors. See **Quickstart 2** '*Working with Connectors*' for more information.

2 Working with Connectors

Connectors are used to join subsystem blocks together.

Adding a Connector

1 Move the mouse over a Connector in the Gallery.

2 Press and hold down the left mouse button. With the mouse button still held down, move the mouse to drag the Connector onto the circuit.

3 As you drag the Connector near a subsystem block it will attach itself to one side.

4 Finally, release the mouse button when the Connector is in the required position.

Understanding signal flow
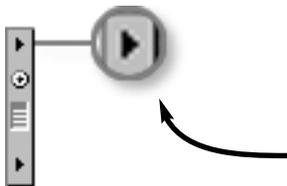
Arrows on Connectors determine the direction in which signals flow between subsystem blocks.

When a Connector is placed next to a subsystem block the direction of the arrow determines whether the signal acts as an input or as an output.

input signal

When the arrow points into a subsystem block, the Connector provides an **input** signal.

output signal

When the arrow points away from a subsystem block, the Connector provides an **output** signal.

Click on a Connector arrow with the right mouse button to change the direction in which the signal flows.

3 Working with wires

Wires allow signals to flow between separate parts of your circuit.

Adding a wire

1 To add a wire, first move the mouse over a link connection.

When you are over a wiring link, the cursor will change shape.

2 Press and hold down the left mouse button.
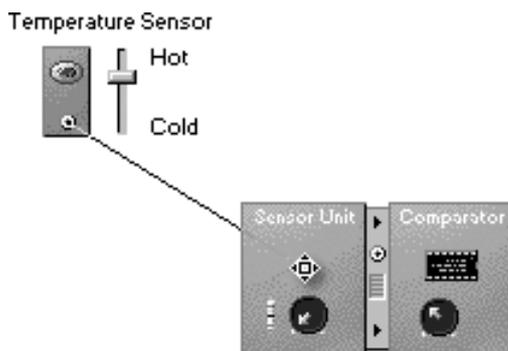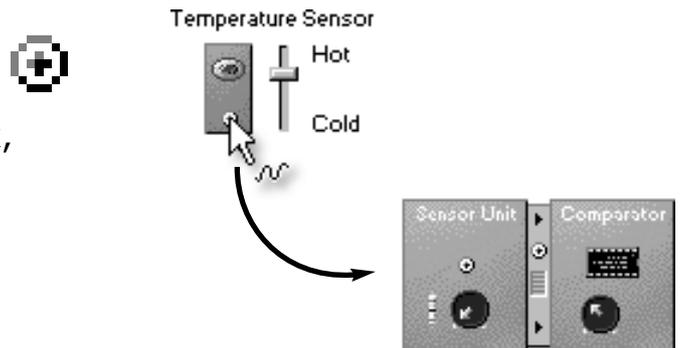
3 With the mouse button still held down, move the mouse to drag the wire onto another link connection.

When you go over a suitable link, the cursor will change shape.

4 Release the mouse button. A wire will then connect the two links.

Adding a bend to a wire

You can add a bend to a wire.

1 Click with left mouse button twice in the middle of the wire.

2 Move the mouse over the black square that appears.

3 Press and hold down the left mouse button.

4 With the mouse button still held down, move the mouse to bend the wire.

5 Release the mouse button
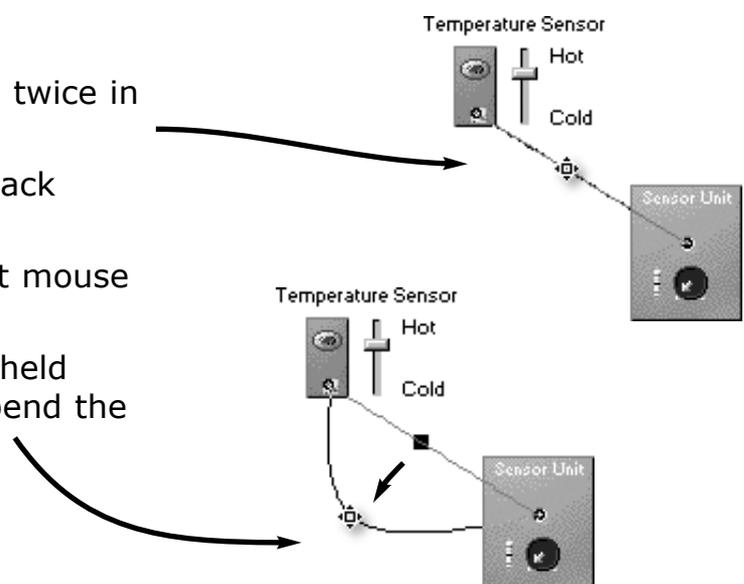
4 Using the Oscilloscope

The Oscilloscope allows you to display signal readings in a graph.

Adding the oscilloscope
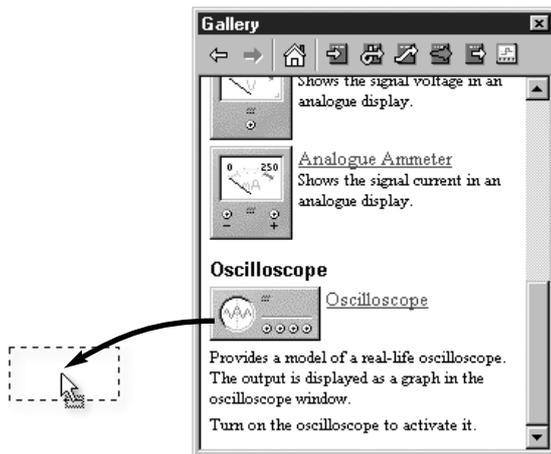
1 Move the mouse over the Oscilloscope in the Gallery (it can be found at the bottom of the Measure group).

2 Press and hold down the left mouse button. With left mouse button still held down, move the mouse to drag the Oscilloscope onto the circuit.

3 Finally, release the mouse button when the Oscilloscope is in the required position.

Wiring up the Oscilloscope

4 Move the mouse over one of the wire links on the Oscilloscope.

5 Press and hold down the left mouse button. With the mouse button still held down, move the mouse to add a wire.

6 Now move the mouse over another wire link. When you release the mouse button a wire will appear between these two links.
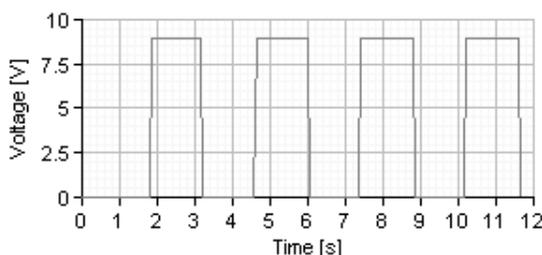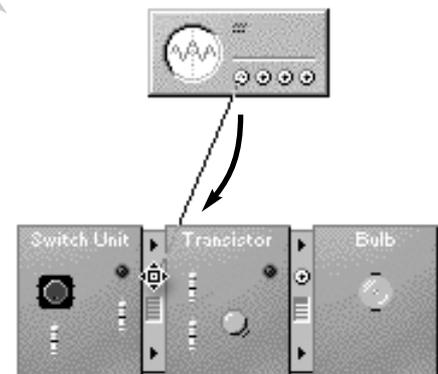
Viewing the graph

7 Click with the right mouse button over the Oscilloscope and choose Add Graph.

8 Use the mouse to draw a box where the graph is to appear.