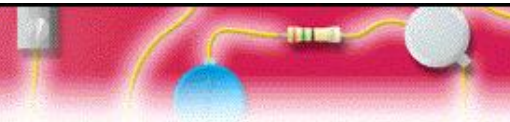


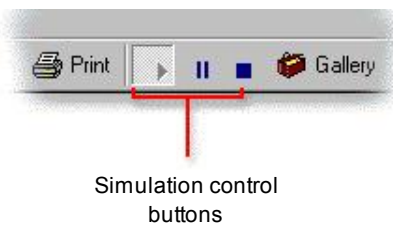
## Watching your circuit simulate Simulating and animating circuits



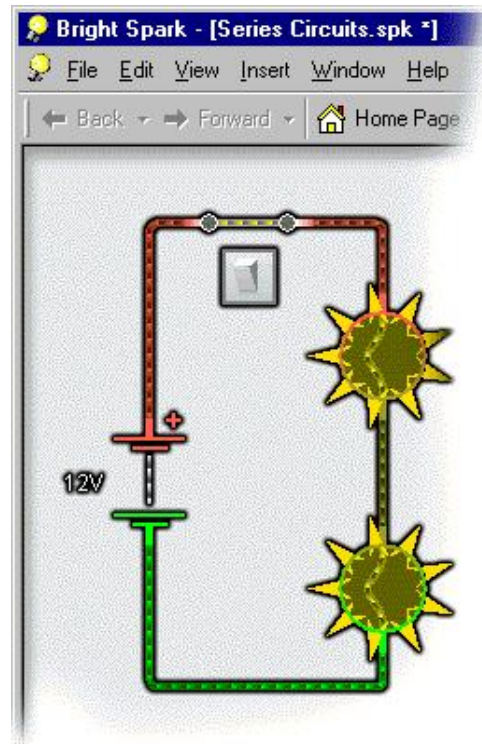
Simulation is the process by which Bright Spark determines what is happening in your circuit.

You can start and stop the simulation by using the simulation control buttons.

- ▶ Click on the **Run** button to begin simulating your circuit.
- || Clicking on the **Pause** button will halt the simulation temporarily.
- Click on the **Stop** button to stop the simulation.



**Note:** You can only create and edit circuits when in Stop mode. During circuit simulation, all editing options will be disabled.

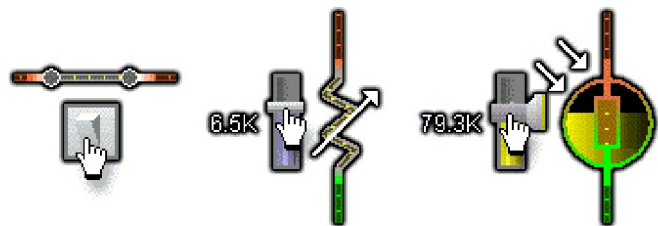


To slow down the simulation, choose **Slow Motion** from the **View** menu. The circuit will then run at one fifth its normal speed. Choosing **Explosions**, again from the **View** menu, allows you to simulate exploding components.

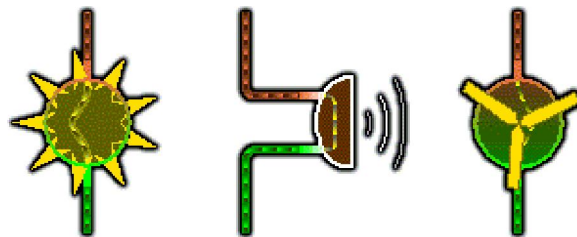
As your circuit simulates, animation is used to show your circuit working—voltage levels, current flow and electric charge are all shown on screen.

**Input components** can be operated with the mouse.

Click on switches and sliders with the left mouse button to operate them.



**Output components** will act like their real world counterparts. For example, bulbs will light, motors will turn and buzzers will sound.



**Capacitors** will show the amount of electrical charge on each plate.



Each + and - sign shown on the capacitor represents an extra 200µC (coulombs) of charge.

Holding the mouse over a component, wire or pin will also give an instantaneous display of the readings at that point.

When over wires, the cursor will also show the direction of current flow (if any).

