

## Slider Example

```
import java.awt.*;
import java.awt.geom.*;
import javax.swing.*;
import javax.swing.event.*;

/** Class to make an Icon - you could instead use a pre-made image */
class myIcon implements Icon{
    private int width;

    private Color myColor;
    public myIcon(int aWidth, Color c)
    {
        width = aWidth;
        myColor = c;
    }

    public int getIconWidth()
    {
        return width;
    }
    public int getIconHeight()
    {
        return width;
    }
    public void setIconWidth(int w){
        width=w;
    }

    public void paintIcon(Component c, Graphics g, int x, int y){
        Graphics2D g2 = (Graphics2D) g;
        Ellipse2D.Double myC = new Ellipse2D.Double(0,0, width, width);
        g2.setColor(myColor);
        g2.fill(myC);
    }
}

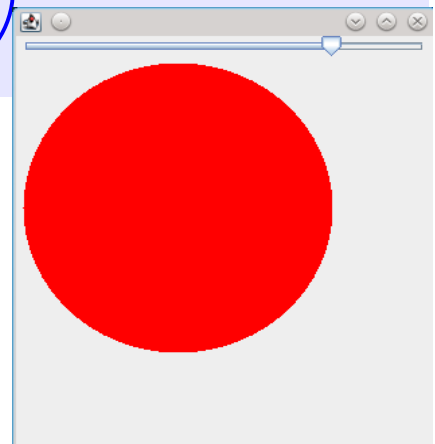
/** Main class */
public class SliderTest
{
    private static final int FRAME_WIDTH = 300;
    private static final int FRAME_HEIGHT = 300;

    private static final int MIN_ICON_SIZE = 0;
    private static final int MAX_ICON_SIZE = FRAME_WIDTH;

    private static myIcon icon1;
    private static JLabel label1;
    private static JSlider zoomSlider;

    public static void main(String[] args)
    {
        JFrame frame = new JFrame();
        frame.setSize(FRAME_WIDTH, FRAME_HEIGHT);
        Container contentPane = frame.getContentPane();
        //frame.setLayout(new FlowLayout());
        frame.setLayout(new BorderLayout(contentPane, BorderLayout.Y_AXIS));
    }
}
```

This just creates an icon



(Outer) frame

```
zoomSlider = new JSlider(MIN_ICON_SIZE, MAX_ICON_SIZE);
zoomSlider.addChangeListener(createZoomSliderListener());
frame.add(zoomSlider);
```

} Slider added to frame. Note the ChangeListener

```
icon1 = new myIcon(MAX_ICON_SIZE, new Color(1.0f, 0.0f, 0.0f));
label1 = new JLabel(icon1);
```

} Label with icon inside

```
JComponent box1 = new JPanel();
box1.setLayout(new BoxLayout(box1, BoxLayout.Y_AXIS));
JPanel panel1 = new JPanel();
frame.add(box1);
box1.add(panel1);
panel1.add(label1);
```

} Create a Panel within the main frame, add the label holding the icon to it. Notice that the outer frame and this panel both have Box Layouts.

```
frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
frame.pack();
```

```
icon1.setIconWidth(zoomSlider.getValue());
```

} Sets initial Icon size – see what happens without this line

```
frame.setVisible(true);
```

```
}
```

```
/**
```

```
Creates a change listener for a slider that changes the width of an icon.
```

```
*/
```

```
public static ChangeListener createZoomSliderListener()
{
```

```
    return new
        ChangeListener()
        {
```

```
            public void stateChanged(ChangeEvent event) {
                icon1.setIconWidth(zoomSlider.getValue());
                label1.repaint();
            }
        };
}
```

```
}
```

```
}
```