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Public Class Form1

    Dim xc, yc, CRadius, IRadius, ORadius, x1, y1, x2, y2, x3, y3, a1 As Short
    Dim COn, IOn, OOn As Boolean
    Dim varFont As Font = New Font("arial", 10)

    Private Sub Luminance_ValueChanged(ByVal sender As System.Object, ByVal e As System.
    EventArgs) Handles Luminance.ValueChanged
        'Adjust the opacity of the form based on the "luminance" control value
        Me.Opacity = Luminance.Value / 100
    End Sub

    Private Sub Form1_Paint(ByVal sender As System.Object, ByVal e As System.Windows.Forms.
    PaintEventArgs) Handles MyBase.Paint
        'Calculate centre of the window
        xc = (Me.Width - 8) / 2
        yc = (Me.Height - 26) / 2
        'When the form is painted, translate the coordinates to the centre of the window
        e.Graphics.TranslateTransform(xc, yc)
        'Draw small centre cross hair
        e.Graphics.DrawLine(Pens.Red, 0, 5, 0, 15)
        e.Graphics.DrawLine(Pens.Red, 0, -5, 0, -15)
        e.Graphics.DrawLine(Pens.Red, 5, 0, 15, 0)
        e.Graphics.DrawLine(Pens.Red, -5, 0, -15, 0)
        'Draw the Centre Circle
        e.Graphics.DrawEllipse(Pens.Red, -CRadius, -CRadius, 2 * CRadius, 2 * CRadius)
        'Draw the Inner Circle
        e.Graphics.DrawEllipse(Pens.Red, -IRadius, -IRadius, 2 * IRadius, 2 * IRadius)
        'Draw the Outer Circle
        e.Graphics.DrawEllipse(Pens.Red, -ORadius, -ORadius, 2 * ORadius, 2 * ORadius)
        'If the Screws check box is checked, draw the screw positions
        If Me.SOnBtn.Checked Then
            e.Graphics.DrawString("1", varFont, Brushes.Red, x1, y1)
            e.Graphics.DrawString("2", varFont, Brushes.Red, x2, y2)
            e.Graphics.DrawString("3", varFont, Brushes.Red, x3, y3)
        End If
    End Sub

    Private Sub CRad_ValueChanged(ByVal sender As System.Object, ByVal e As System.
    EventArgs) Handles CRad.ValueChanged
        'Set the radius of the centre spot circle
        CRadius = Me.CRad.Value
        'Declare the form invalid so it gets repainted with the reticle in the new position
        Me.Invalidate()
    End Sub

    Private Sub IRad_ValueChanged(ByVal sender As System.Object, ByVal e As System.
    EventArgs) Handles IRad.ValueChanged
        'Set the radius of the inner Airy disc circle
        IRadius = Me.IRad.Value
        'Declare the form invalid so it gets repainted with the reticle in the new position
        Me.Invalidate()
    End Sub

    Private Sub ORad_ValueChanged(ByVal sender As System.Object, ByVal e As System.
    EventArgs) Handles ORad.ValueChanged
        'Set the radius of the outer Airy Disc circle
        ORadius = Me.ORad.Value
        CalcCoords()
        'Declare the form invalid so it gets repainted with the reticle in the new position
        Me.Invalidate()
    End Sub

    Private Sub CalcCoords()
        'Calculate the position of screw 1
        x1 = (ORadius + 10) * System.Math.Cos(a1 * System.Math.PI / 180) - 5
        y1 = (ORadius + 10) * System.Math.Sin(a1 * System.Math.PI / 180) - 7
        'Calculate the position of screw 2
        x2 = (ORadius + 10) * System.Math.Cos((a1 + 120) * System.Math.PI / 180) - 5
        y2 = (ORadius + 10) * System.Math.Sin((a1 + 120) * System.Math.PI / 180) - 7
        'Calculate theposition of screw 3
        x3 = (ORadius + 10) * System.Math.Cos((a1 - 120) * System.Math.PI / 180) - 5
        y3 = (ORadius + 10) * System.Math.Sin((a1 - 120) * System.Math.PI / 180) - 7
    End Sub
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    Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs)
    Handles MyBase.Load
        'Initialise the radius of the centre circle
        CRadius = 0
        'Set the value on the numerical updown control
        Me.CRad.Value = CRadius
        'Initialise the radius of the inner circle
        IRadius = 10
        'Set the value on the numerical updown control
        Me.IRad.Value = IRadius
        'Initialise the radius of the outer circle
        ORadius = 20
        'Set the value on the numerical updown control
        Me.ORad.Value = ORadius
        'Initialise th angle of the screw to 0
        a1 = 0
        'Calculate initial positions of the screws
        CalcCoords()
    End Sub

    Private Sub Angle1_ValueChanged(ByVal sender As System.Object, ByVal e As System.
    EventArgs) Handles Angle1.ValueChanged
        'Get the angle of the screws from the screw control
        a1 = Me.Angle1.Value
        'Calculate the new position of the screws
        CalcCoords()
        'Invalidate the form so its repainted in the new orientation
        Me.Invalidate()
    End Sub

    Private Sub SOnBtn_CheckedChanged(ByVal sender As System.Object, ByVal e As System.
    EventArgs) Handles SOnBtn.CheckedChanged
        'Invalidate the form so its repainted with or without the screw positions
        Me.Invalidate()
    End Sub
End Class
```