

Butterfly Badge Codeblocks

```
Create New Object body
Add [red circle] [grey circle] [hatched circle]
Scale: X: 1 Y: 1.25 Z: 1
Move: X: 0 Y: -5 Z: 5
Add [red circle] [grey circle] [hatched circle]
Scale: X: .65 Y: .5 Z: .75
Move: X: 0 Y: 12 Z: 5
Add [blue circle] [green circle] [hatched circle] [arrow]
Scale: X: .3 Y: .3 Z: .3
Move: X: -5 Y: 12 Z: 4
Add [blue circle] [green circle] [hatched circle] [arrow]
Scale: X: .3 Y: .3 Z: .3
Move: X: 5 Y: 12 Z: 4
Add [grey teardrop] [grey circle] [hatched circle] [arrow]
Scale: X: .1 Y: .1 Z: 1
Move: X: -10 Y: 22 Z: 5
Rotate around Axis x by 90 Degrees from Pivot
Rotate around Axis z by 45 Degrees from Pivot
Add [grey teardrop] [grey circle] [hatched circle] [arrow]
Scale: X: .1 Y: .1 Z: 1
Move: X: 10 Y: 22 Z: 5
Rotate around Axis x by 90 Degrees from Pivot
Rotate around Axis z by -45 Degrees from Pivot
Add [red circle] [grey circle] [hatched circle]
Scale: X: .65 Y: 2.75 Z: .85
Move: X: 0 Y: -25 Z: 4
Create Group [rainbow circle] [hatched circle]
Rotate around Axis x by 90 Degrees from Pivot
Move: X: 0 Y: 10 Z: 110
```

Butterfly Badge Codeblocks

The code is organized into two main sections. The first section creates the wings and body. It starts with a 'Create New Object' block for a 'wing'. An 'Add' block includes a brown circle, an orange circle, and a grey circle. The wing is scaled (X: 2, Y: 3, Z: .1), rotated around the z-axis by -120 degrees, and then around the x-axis by 90 degrees. It is moved to X: 40, Y: 8, Z: 105. A second 'Add Copy of Object' block uses an orange circle and a grey circle. This copy is moved to X: -25, Y: 0, Z: -15, scaled to X: .85, Y: .85, Z: .85, and rotated around the y-axis by 45 degrees. A 'Create Group' block is followed by another 'Add Copy of Object' block using a rainbow circle and a grey circle. This copy is rotated around the z-axis by 180 degrees and moved to X: -80, Y: 0, Z: 0.

The second section creates a pattern. It starts with 'Create New Object' for a 'pattern'. Two variables are created: 'rotation' with a value of 0 and 'radius' with a value of 15. A 'Repeat' block loops 5 times. Inside the loop, an 'Add' block uses a blue circle, a grey circle, and a cylinder with 'Radius' set to the 'radius' variable, 'Sides' set to 10, 'Tube' set to 2, and 'Steps' set to 16. The cylinder is scaled (X: 1, Y: .3, Z: .5) and moved to X: radius, Y: 0, Z: 0. It is rotated around the z-axis by the 'rotation' variable, with pivot points at X: 0, Y: 0, Z: 0. The 'radius' variable is then changed by 3 and multiplied by .1. The 'rotation' variable is changed by -10. After the loop, a 'Create Group' block is followed by a 'Rotate around' block for the z-axis by -30 degrees.

```
Create New Object wing
Add
  brown circle
  orange circle
  grey circle
Scale: X: 2 Y: 3 Z: .1
Rotate around Axis z by -120 Degrees from Pivot
Rotate around Axis x by 90 Degrees from Pivot
Move: X: 40 Y: 8 Z: 105
Add Copy of Object wing
  orange circle
  grey circle
Move: X: -25 Y: 0 Z: -15
Scale: X: .85 Y: .85 Z: .85
Rotate around Axis y by 45 Degrees from Pivot
Create Group
  rainbow circle
  grey circle
Add Copy of Object wing
  rainbow circle
  grey circle
Rotate around Axis z by 180 Degrees from Pivot
Move: X: -80 Y: 0 Z: 0

Create New Object pattern
Create Variable rotation 0
Create Variable radius 15
Repeat 5 Times
  Add
    blue circle
    grey circle
    cylinder Radius radius Sides 10 Tube 2 Steps 16
  Scale: X: 1 Y: .3 Z: .5
  Move: X: radius Y: 0 Z: 0
  Rotate around Axis z by rotation Degrees from Pivot X: 0 Y: 0 Z: 0
  Change radius by 3 * radius .1
  Change rotation by -10
Create Group
  blue circle
  grey circle
Rotate around Axis z by -30 Degrees from Pivot
```

Butterfly Badge Codeblocks

```
Create New Object wing pattern
Add Copy of Object pattern
Add Copy of Object pattern
Rotate around Axis x by 180 Degrees from Pivot
Move: X: 0 Y: 75 Z: 0
Create Group
Move: X: 0 Y: 75 Z: 0
Create Group
Move: X: -28 Y: -89 Z: 112
Rotate around Axis z by -90 Degrees from Pivot
Delete Object pattern
Rotate around Axis x by 90 Degrees from Pivot
```

```
Create New Object dot pattern
Create Variable ray number 9
Count with i from 7 to ray number by 1
Do
  Add
  Scale: X: .3 Y: .5 Z: .1
  Move: X: 0 Y: 20 Z: 0
  Rotate around Axis z by  $i * 360 / \text{ray number}$  Degrees from Pivot X: 0 Y: 0 Z: 0
Create Group
Rotate around Axis x by 90 Degrees from Pivot
Move: X: 49 Y: -13 Z: 119
Add Copy of Object dot pattern
Move: X: -120 Y: 0 Z: 0
Rotate around Axis y by -80 Degrees from Pivot
```

Butterfly Badge Codeblocks

