HOW TO BUILD AN IRIS   By A. Harris

Maya Complete
Animation

In this lesson, you will
learn how to build an iris
and use Set Driven Key
to animate it opening
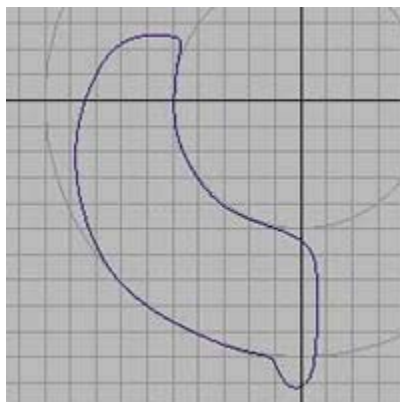and closing.

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To achieve this, you will
create a locator and add
an attribute called Shutter. This attribute will range from
0 to 10. 10 equals the iris in closed the position.

STEP ONE
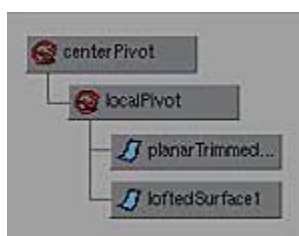
Set the **Grid Options** to
default settings.

Create two Nurbs circles
at the origin -- one 10
units and the other 5
units. Template them to
use as guides.

- Create a closed
  CV Curve as shown.
- Duplicate the curve and translate in **Y** to **- 0.2**
- Select the top curve and select **Surfaces >
  Planar.**
- Select the top curve and the bottom curve and
  select **Surfaces > Loft.**
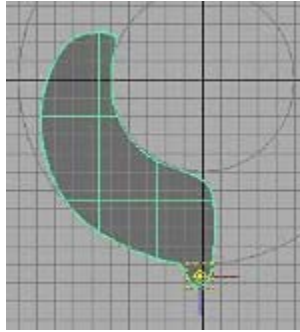- Delete the curves or delete history on the
  surfaces.

STEP TWO

You will need to group these
surfaces twice to get two
different pivot points. One for
creating the subsequent

shutters and the other for the
local rotation.

- Select the two surfaces.
- Select **Edit > Group** and
  rename this node
  localPivot.
- Select the node
  localPivot, then select
  Edit > Group again and
  rename this node
  *centerPivot***.** This node should be at the origin.

You will now change the location of the *localPivot.*

- Select the *localPivot* node.
- Press **Insert** on the keyboard to modify the pivot
  point.
- In the top view, **Move** the pivot to the corner of
  the shutter piece as shown.
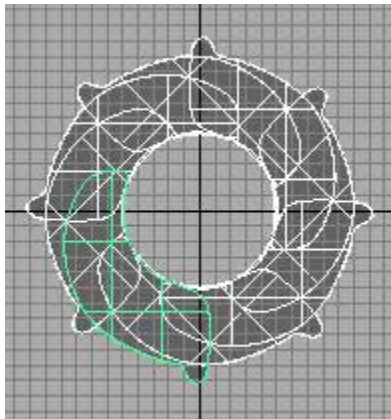- Press **Insert** again when finished.

STEP THREE

You will now be
duplicating surfaces to
create the other pieces.

- Select the
  centerPivot node.
- Select **Edit >
  Duplicate -
  Options** and set
  the following:

  Rotate Y to **30;**
  Translate Y to **0.1;**
  Number of Copies to **11**

- Press **Duplicate.**

STEP FOUR

You will be creating a Locator with an attribute called
shutter to control the opening and closing of the iris.

- Select **Create > Locator.**

- Select **Modify > Add Attribute...** and set the following:

  Attribute name to **shutter;**
  Minimum to **0;**
  Maximum to **10**

- Press **OK**.

STEP FIVE

The Locator now needs a connection to the rotation attribute of the local pivot. To achieve this connection, you will use **Set Driven Key** .

- **Select** all twelve of the *localPivot* nodes.
- Select **Animate > Set Driven Key > Set - Options.**
- With the *localPivots* selected, press **Load Driven.**
- Highlight all the **localPivots** in the left column**.**
- In the right column of the Driven section, highlight **rotate Y**.

You will now load the Locator as the Driver.

- **Select** the Locator.
- Press **Load Driver**.
- Highlight the locator in the left column.
- In the right column of the Driver section, highlight **shutter**

In this next step you will be setting the keys.

- Press **Key**.
  This will set a key for the **shutter** value of **0** when the iris is fully open.
- In the Channel Box, set the **shutter** value to **10.**
- **Select** all the *localPivot* nodes**.**
- Highlight the **Rotate Y** attribute name in the Channel Box.
- Use the virtual slider with the **MMB** in the workspace by **click- dragging** to the left until the iris is closed.
- Press **Key.**

Test the Set Driven Key by selecting the Locator and entering different values or by using the virtual slider.

CONCLUSION

You should now have
the **shutter** attribute
controlling the
animation of the iris.
Experiment with
different curve shapes
and amount of shutters.
You can also
experiment with

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different translate offsets when duplicating the shutters.