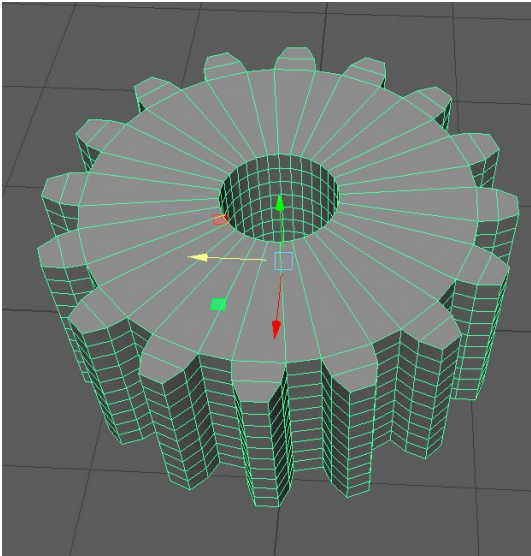


# Basic modifiers and tools for working with objects

Aiganym Soltiyeva

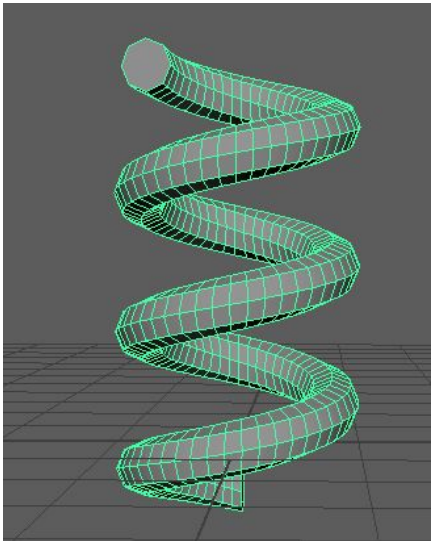
# Create->Polygon Primitives->Gear



**Poly Gear History**

Sides	16	<input type="range"/>
Radius	1.000	<input type="range"/>
Internal Radius	0.300	<input type="range"/>
Height	1.000	<input type="range"/>
Height Divisions	10	<input type="range"/>
Gear Spacing	0.600	<input type="range"/>
Gear Offset	0.200	<input type="range"/>
Gear Tip	0.500	<input type="range"/>
Gear Middle	1.200	<input type="range"/>
Twist	0.000	<input type="range"/>
Taper	1.000	<input type="range"/>

# Create->Polygon Primitives->Gear

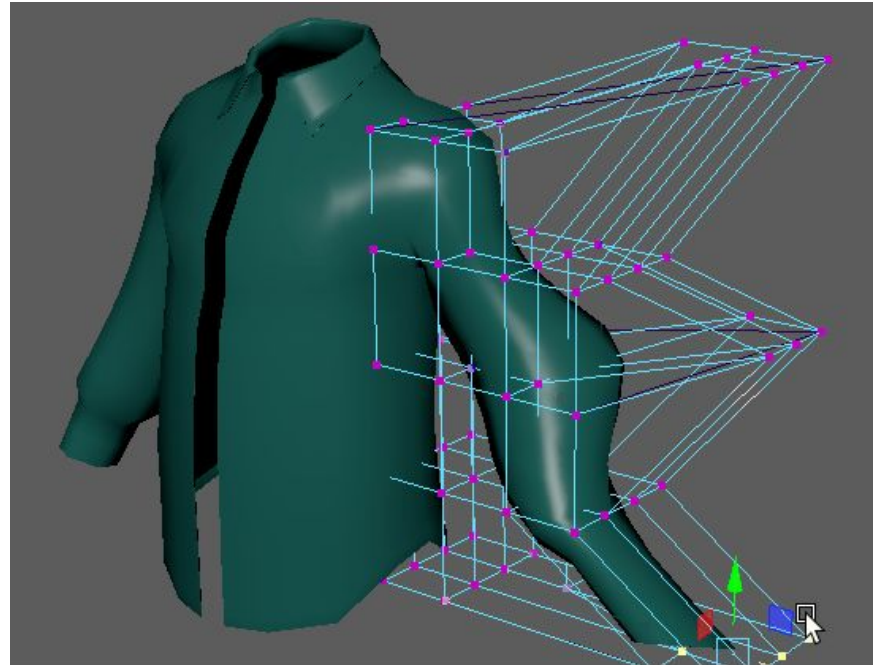


**Poly Helix History**

Coils	3.214	<input type="range"/>
Height	3.618	<input type="range"/>
Width	2.000	<input type="range"/>
Radius	0.216	<input type="range"/>
Subdivisions Axis	8	<input type="range"/>
Subdivisions Coil	50	<input type="range"/>
Subdivisions Caps	0	<input type="range"/>
<input checked="" type="checkbox"/> Round Cap		
Direction	Counterclockwise	<input type="button" value="v"/>
Create UVs	Normalize and Preserve Aspect Ratio	<input type="button" value="v"/>

# Deformers as modeling tools

- You can use deformers as modeling tools for shaping NURBS or polygonal objects. You can create a deformer, for example a sculpt deformer tool, and tweak the model's shape with it. When you are finished modeling with the deformer, delete it along with the rest of the object's history (choose **Edit > Delete by Type > History**). When you delete the object's history, the deformer is deleted, but all the deform operations are baked into the object's shape so that it retains its final deformed state.

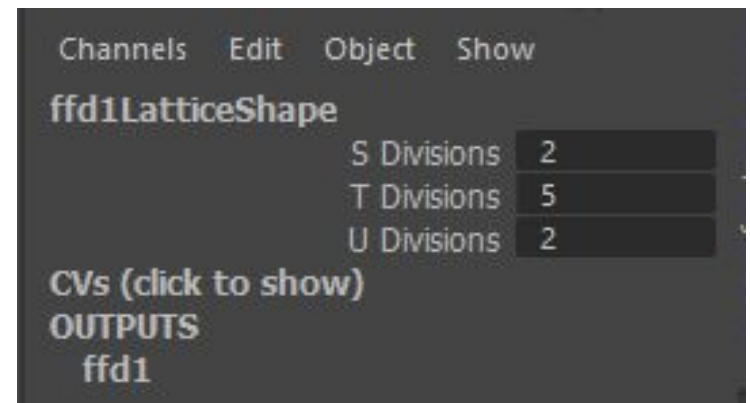
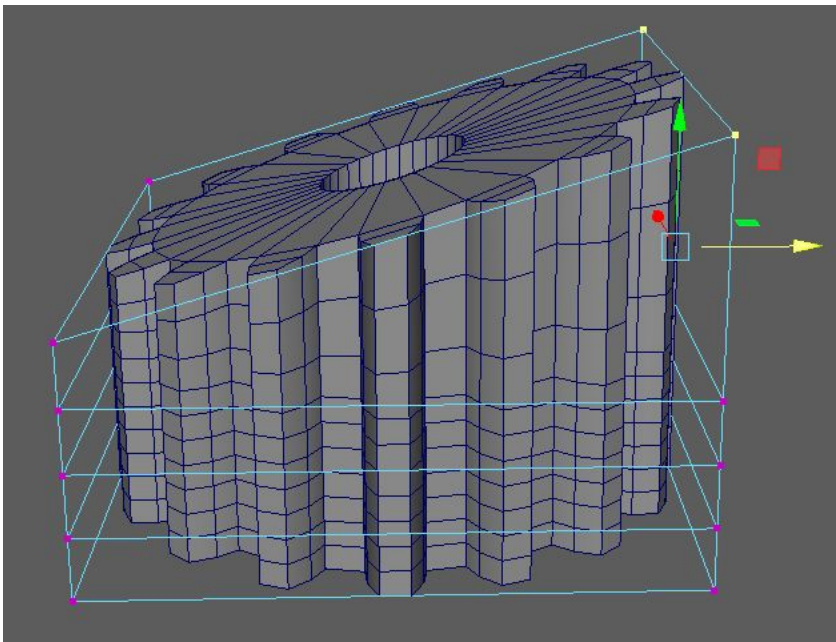


# Lattice deformer

Lattice deformers let you deform objects with lattices. A lattice deformer surrounds a deformable object with a lattice that you can manipulate to change the object's shape.

## To create a lattice deformer

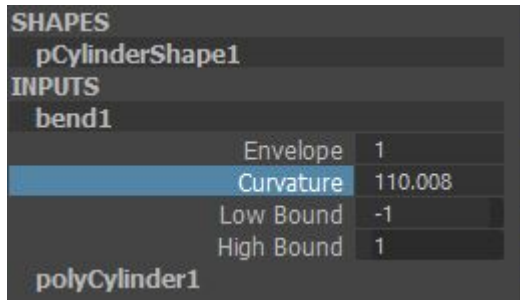
1. Select one or more deformable objects.
2. Select Deform > (Create) Lattice > .  
The [Lattice Options](#) window appears.
3. Click the Basic and Advanced tabs and set the creation options.
4. Click Create to create a lattice deformer. A skeletal lattice box surrounds the object.
5. Move, rotate, or scale influence lattice points.



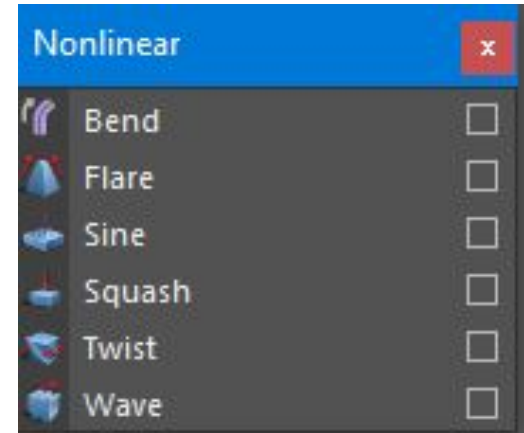
# Nonlinear deformers

To create a deformer

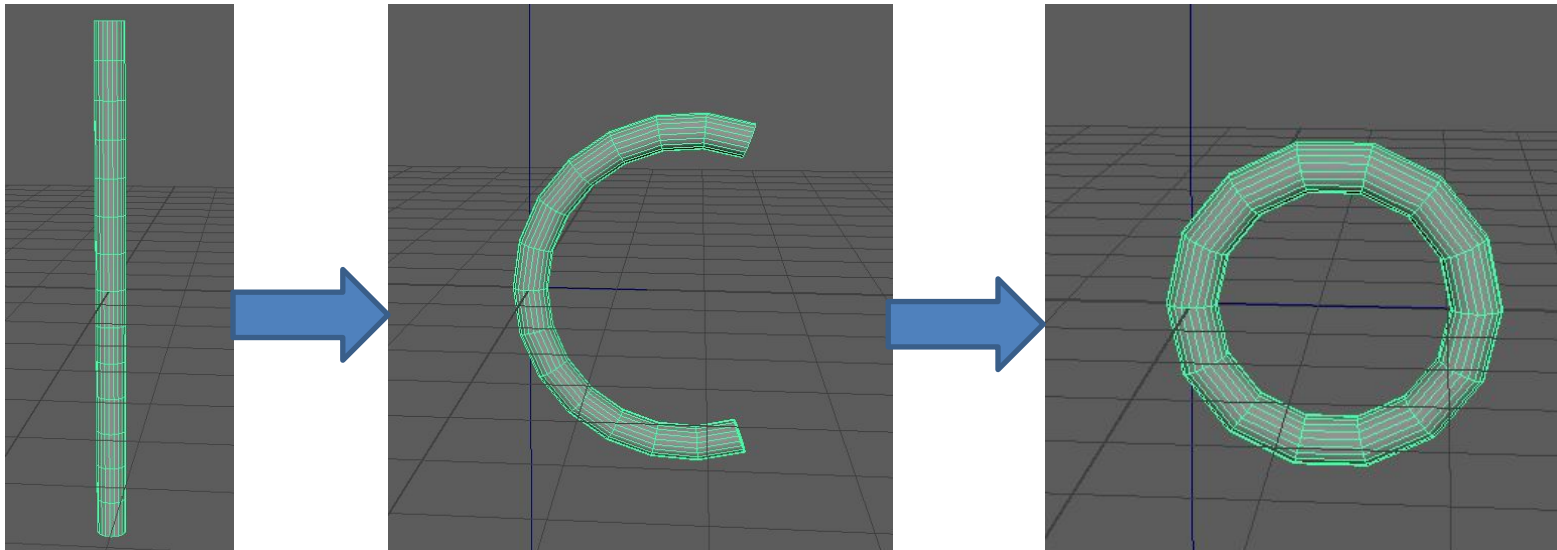
- Select the object(s) you want to deform.
- Select Deform > (Create) Nonlinear >



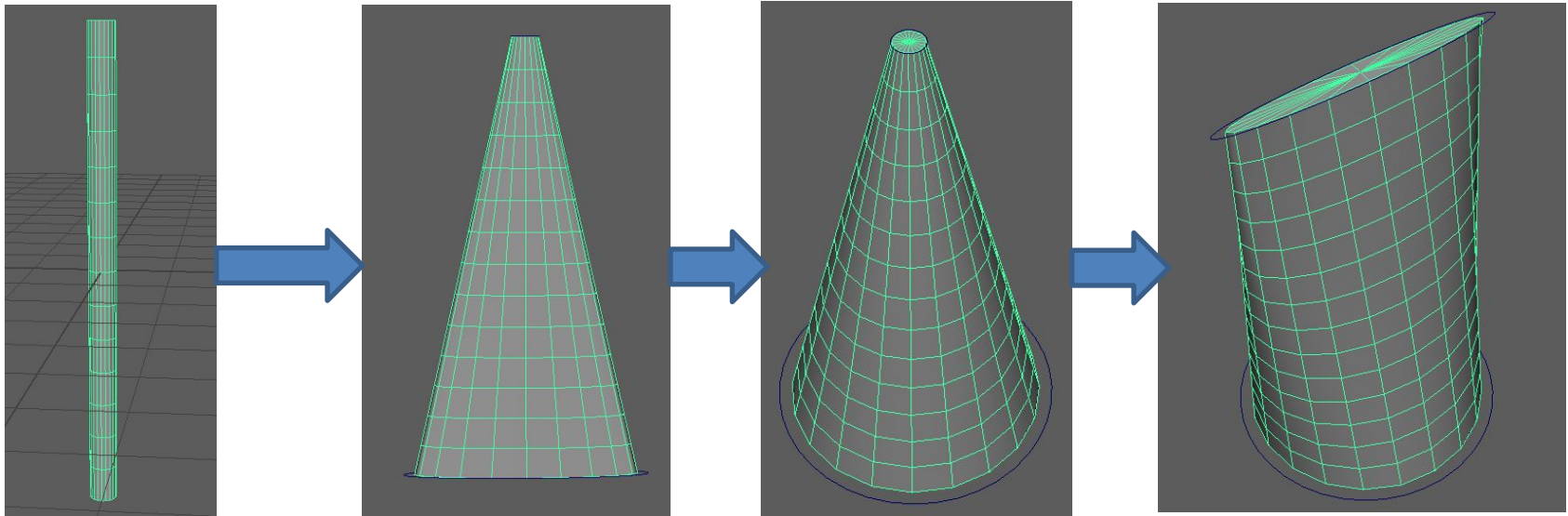
Deform->Nonlinear



Bend Deformer



## Flare Deformer

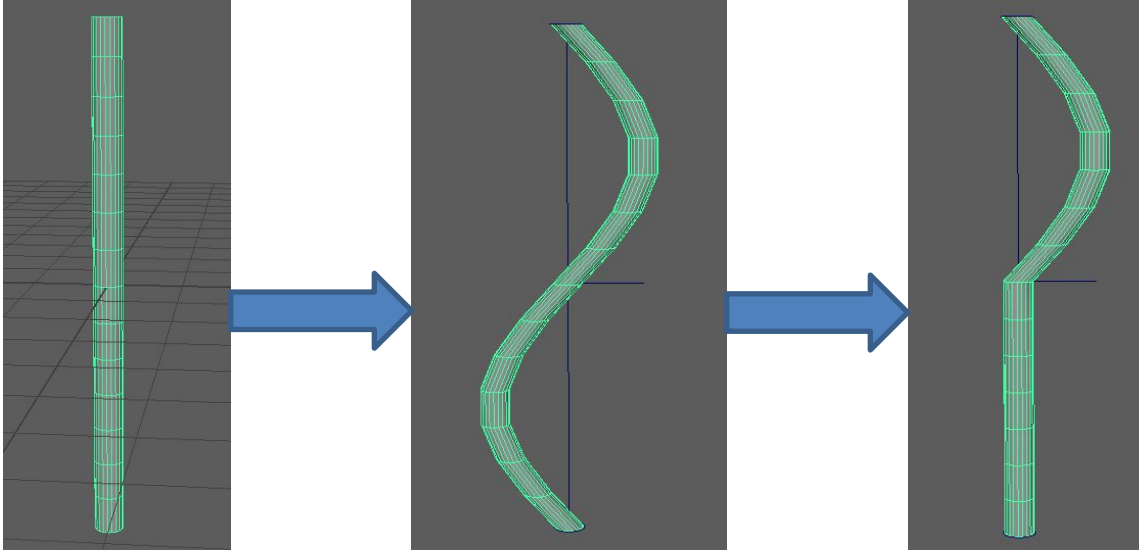


pCylinderShape1	
INPUTS	
flare1	
Envelope	1
Start Flare X	10
Start Flare Z	10
End Flare X	10
End Flare Z	1
Curve	0
Low Bound	-1
High Bound	1

To edit flares with the Channel Box  
Select the flare deformer node (default name: flaren). One quick way to select the flare deformer node is to select the object being deformed, and then select the flare deformer node in its history from the Channel Box (under INPUTS).

You can control which attributes are listed as keyable attributes (channels) in the Channel Box with the Channel Control editor (select [Window > General Editors > Channel Control](#)).

## Sine deformer

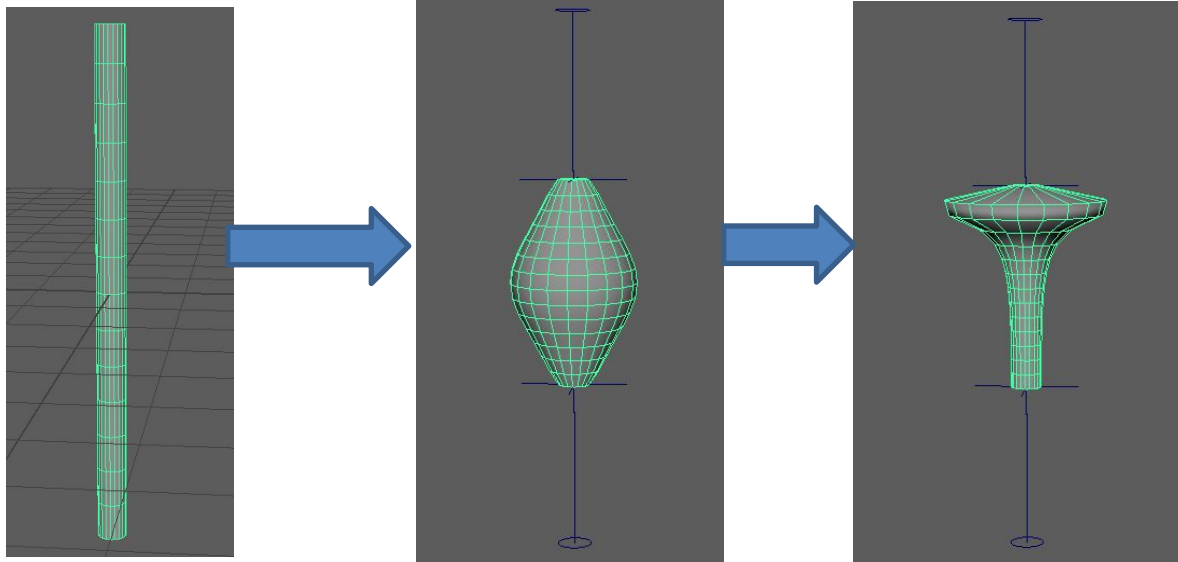


### INPUTS

sine1

Envelope	1
Amplitude	0
Wavelength	2
Offset	0
Dropoff	0
Low Bound	-1
High Bound	1

## Squash deformer



### INPUTS

squash1

Envelope	1
Factor	-1.6
Expand	1
Max Expand Pos	0.9
Start Smoothness	0
End Smoothness	0
Low Bound	-1
High Bound	1

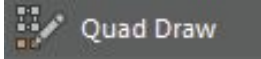
# Quad Draw Tool

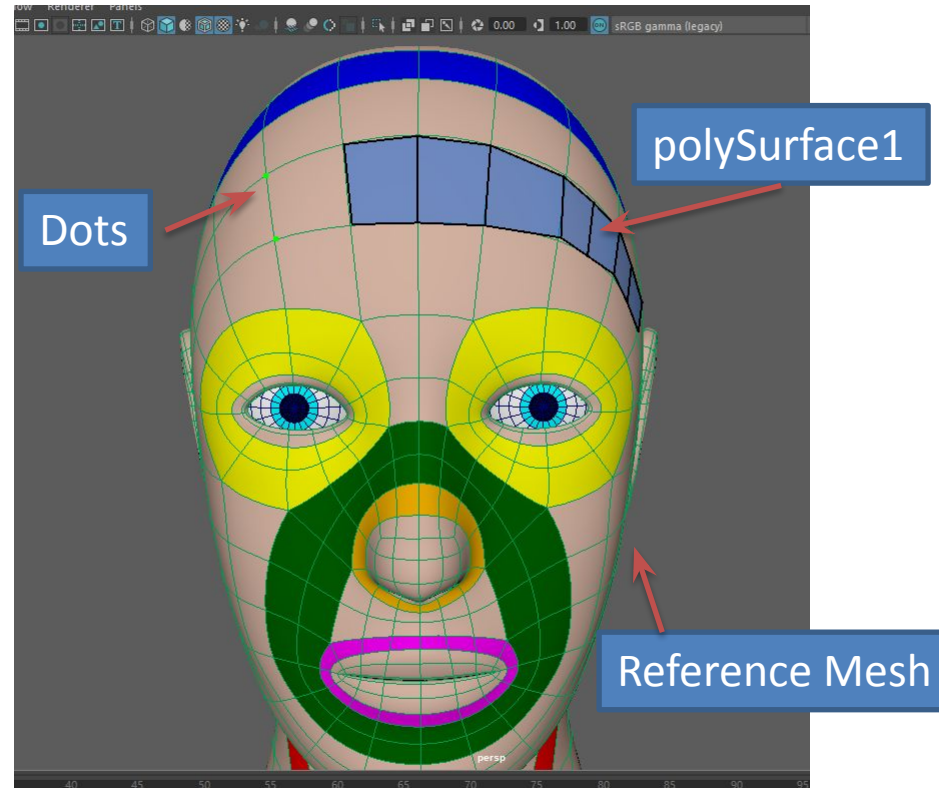
You can model in a natural and organic way using Quad Draw Tool, which offers a streamlined, one-tool workflow for retopologizing meshes. The manual retopology process lets you create clean meshes while preserving the shape of your reference surface.

## To set a reference mesh

- Select the object you want to use as your reference mesh
- Click the Make Live icon in the Status Line.
- Right-click the object, and then select Make Live.

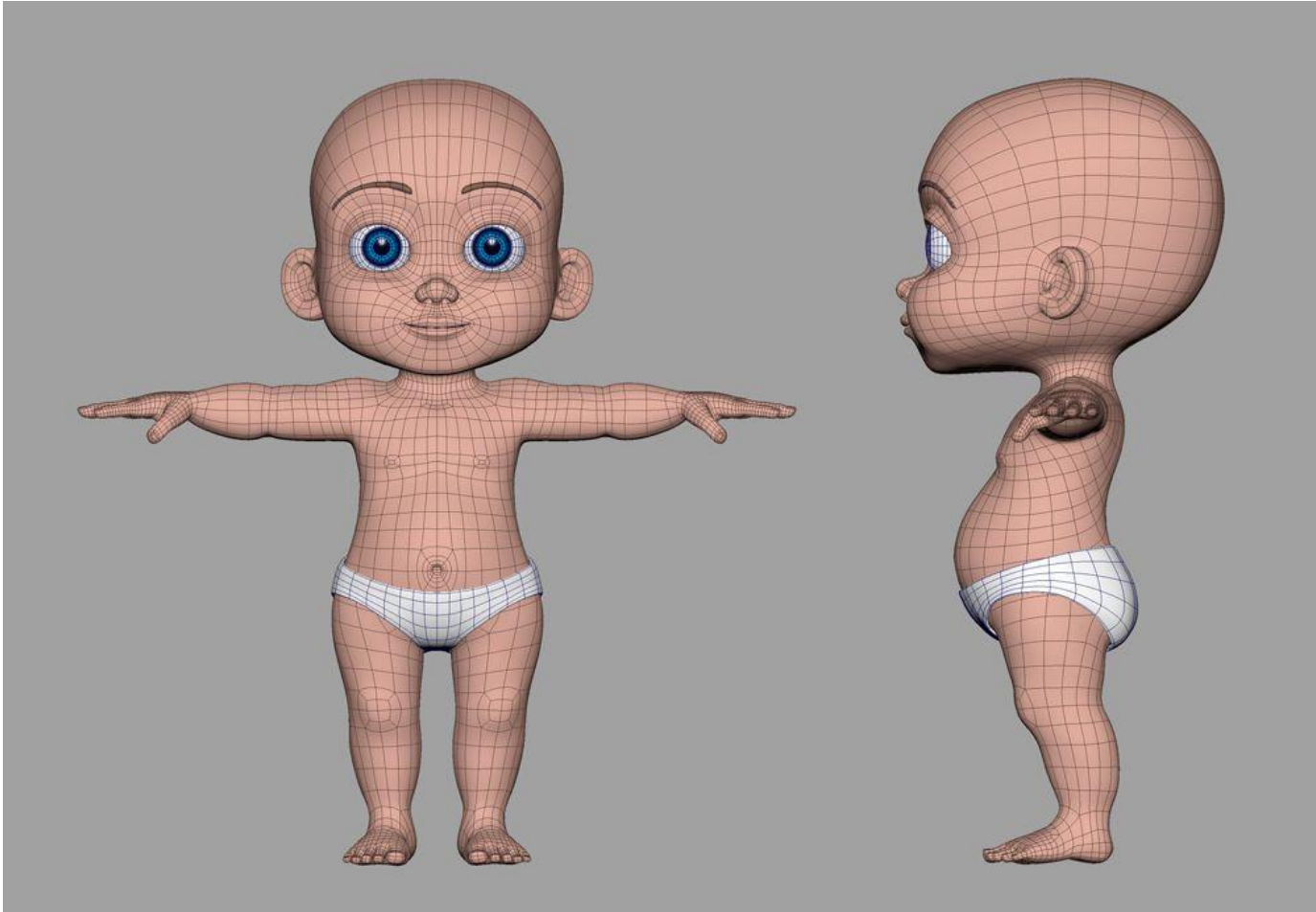
You can access the Quad Draw Tool via:

- The Tools section of the [Modeling Toolkit](#) window, by clicking 
- The main menu bar, by selecting Mesh Tools > Quad Draw.
- The marking menu, by selecting Quad Draw Tool (to open the marking menu, **Shift + right-click** in the scene).





# Homework #6



# Something interesting

- <https://www.indeed.com/career/3d-modeler/salaries>
- <https://www.computercareers.org/3d-modeler-salary/>
- <https://www.salary.com/research/salary/posting/3d-modeler-salary>