

Geomagic Sculpt® Quick Reference



Touch. Design. Realize.

WORKING WITH GEOMAGIC SCULPT

Work from Coarse Clay to Fine

When creating new models from scratch, it is best to first create a rough shape using a coarse clay setting such as “Rough Shape” or “Refine Shape.” Then, as you refine the model and want to capture finer details, use the “Change Clay Coarseness” command for more fine-grained clay settings, such as “Add Detail.”

- **Let Tools Guide You while Creating 3D Curves**

To trace a surface that is concave, run the tool along the outside of the model. To trace a surface that is convex, run the tool along the inside of the model.

- **Sculpt from Inside or Outside**

When sculpting, you can work on the outside or inside of the model. Keep in mind that the control of the tool may differ and that sometimes it is more effective to work from inside the model.

- **Watch the Status Bar**

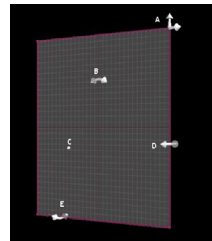
The status bar, located under the dynabar, contains embedded help. Sometimes it will describe what a tool does or prompt you for the next step in using a particular tool.

- **Pay Attention to Dynabars**

Many commands have controls that are specific only to them. The bottom toolbar will change dynamically and present the controls for that tool.

WORKING WITH PLANES

A red border indicates the plane is selected.



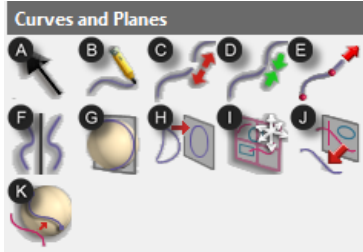
- Touch and drag a corner of the plane to grow or shrink it.
- Touch either one of the red axes to rotate the plane around its center point.
- Touch the plane at the center or in any quadrant (away from an axis border) and drag to reposition.
- Touch a vertical border away from a corner to rotate the plane around the Y-axis.
- Touch a horizontal border away from a corner to rotate the plane around the X-axis.

KEYBOARD HOTKEY SHORTCUTS

Keyboard	Function		
	“Grab” the model to move and rotate freely		
	Translate and zoom the model without. Changing the rotation		
	Rotate the model with haptic detents along the major screen axes		
	Front view		Right view
	Left view		Top view
	Right of main view		Top of main view
	Left of main view		Bottom of main view
	Hide side views		Manage saved views
...	Adjust the resistance of the clay. A value of 1 is hardest (like rock), a value of 0 is softest (butter)		
	Decrease or increase the size of the tool head		

Keyboard	Function
+	Grab and move the model to change which parts of the model are within the touchable area
	Pop through clay
	Invoke the online Help
	Equivalent to pressing the Touch stylus switch
Space bar	Invoke the favorite menu
+	Save current view. Can be recalled from Saved Views menu
	Click to disconnect the selected curve from other curves
+	Rotate the model about the screen normal
	Rotate the view around the screen vertical
	Rotate the view around the screen horizontal

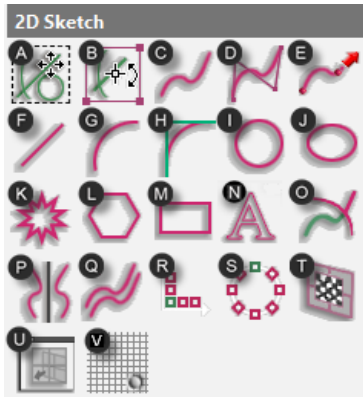
PALETTES AND TOOLS



CURVES AND PLANES

Use to create and edit 3D curves and planes that can be used to add detail and deform models.

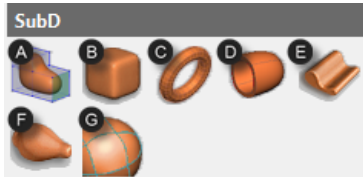
- | | |
|-------------------------|-----------------------------|
| A. Select | G. Plane Intersection Curve |
| B. Draw Curve | H. Project Curve to Plane |
| C. Split | I. Edit Plane |
| D. Join | J. Copy from Sketch |
| E. Extend/Retract Curve | K. Project Sketch |
| F. Mirror Curves | |



2D SKETCH

Use to sketch on flat 2D drawing planes.

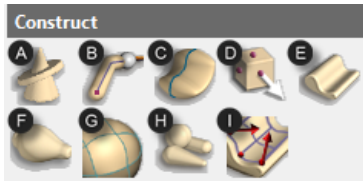
- | | |
|--------------------------------|-----------------------|
| A. Select Sketch Object | M. Rectangle |
| B. Move, Rotate, Scale | N. Text |
| C. Freehand Curve | O. Trim |
| D. Control Point Curve | P. Mirror |
| E. Extend/Retract Sketch Curve | Q. Offset |
| F. Line | R. Rectangular Array |
| G. Arc | S. Circular Array |
| H. Round Corner | T. Import to Plane |
| I. Circle | U. View Flat to Plane |
| J. Ellipse | V. Haptic Graph Paper |
| K. Star | |
| L. Polygon | |



SUBD

Use to create and edit SubD surfaces.

- | | |
|----------------|--------------------------|
| A. Edit SubD | E. Wire Cut SubD |
| B. Cube SubD | F. Spin SubD |
| C. Ring SubD | G. Curve Network to SubD |
| D. Hollow SubD | |



CONSTRUCT

Use to quickly and easily rough-out models.

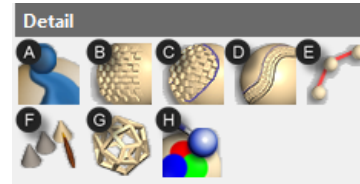
- | | |
|------------------|--------------------------|
| A. Basic Shapes | F. Spin Clay |
| B. Pipe | G. Curve Network to Clay |
| C. Inflate | H. Add Clay |
| D. Stretch | I. Shape Clay |
| E. Wire Cut Clay | |



SCULPT

Use to modify, refine, and add design details to a model.

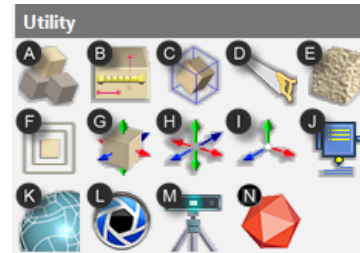
- | | |
|----------------|-------------------|
| A. Carve | F. Tug |
| B. Smudge | G. Tug Area |
| C. Attract | H. Tug with Curve |
| D. Hot Wax | I. Select Clay |
| E. Smooth Area | J. Mirror Clay |



DETAIL

Use to modify, refine, and add design details to a model.

- | | |
|------------------------------|-------------------------|
| A. Emboss Area | E. Pattern Piece |
| B. Emboss with Image | F. Manual Pattern Piece |
| C. Emboss with Wrapped Image | G. StructureFX |
| D. Emboss Along Curve | H. Paint |



UTILITY

Commonly used tools.

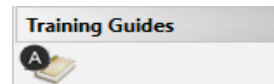
- | | |
|-----------------------------|--------------------------|
| A. Activate Piece | H. Reposition |
| B. Ruler | I. Reposition Origin |
| C. Dimensional Bounding Box | J. Printability Checking |
| D. Define Cutaway View | K. AutoSurface |
| E. Clay Coarseness | L. Send to KeyShot |
| F. Scale Model | M. Capture Scanning |
| G. Reposition Piece | N. Artec Scanning |



VISIBILITY

Hide and Show tools.

- | | |
|----------------------------|--------------------------------|
| A. Hide/Show Clay | E. Hide/Show Curves |
| B. Hide/Show Meshes | F. Hide/Show Persistent Rulers |
| C. Hide/Show SubD Surfaces | G. Hide/Show Inactive Clay |
| D. Hide/Show Planes | H. Show Cutaway View |



TRAINING GUIDES

Use to view training guides in the application.

- A. Getting Started