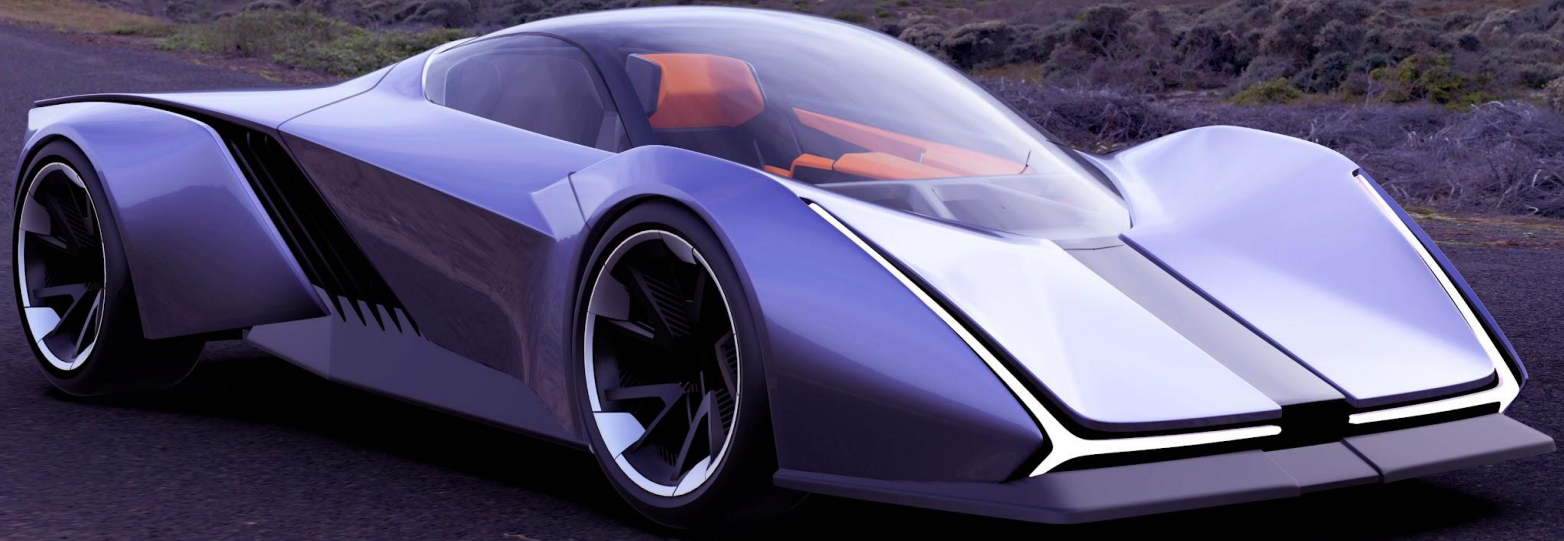


# gravity sketch

## Automotive Exterior Training Curriculum



# How it Works

Entire curriculum should last approximately 6 weeks.

- Schedule your weekly training sessions.
- [Click here to schedule a day and time.](#)
- Each training session will be followed by a homework assignment. 2-4 hours or more per week is recommended for best results.
- The more you practice, the better the results!

## Session 1

### Onboarding & Basic Sketching

- *Learning the basic controls*
- *Moving around the Virtual Space*
- *Introduction to Ink & Stroke*
- *Free Sketch over Race Car Chassis*

## Session 2

### 3D Sketching & Form Discovery

- *Introduction to Point Editing, Duplication, Planar Sketching & Smart Move*
- *Introduction to Volume Brush*
- *Free Sketch Over Race Car Chassis*

## Session 3

### Taking your 2D Sketch to 3D

- *Importing your 2D Sketches*
- *Building a Vehicle Package*
- *Building a 3D wireframe model*
- *Revolve & Polar Symmetry*

## Session 4

### Basic Surfacing

- *Bridging Curves*
- *Building Sub-D surfaces with Primitives*
- *Building Sub-D surfaces with Ribbon Stroke*

## Session 5

### Building your design in Sub-D

- *Working Session: Surfacing your 3D Wireframe Model*

## Session 6

### Refining Your Design in Sub-D

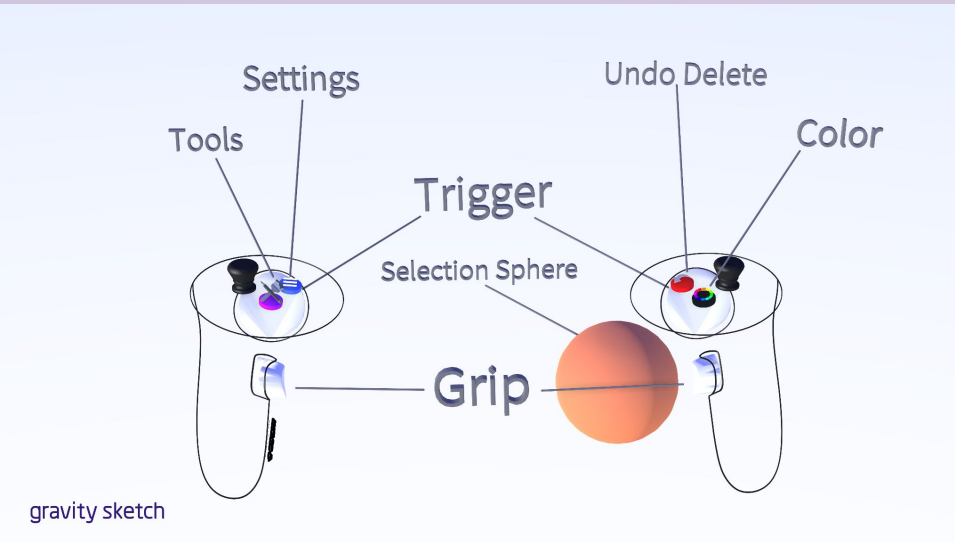
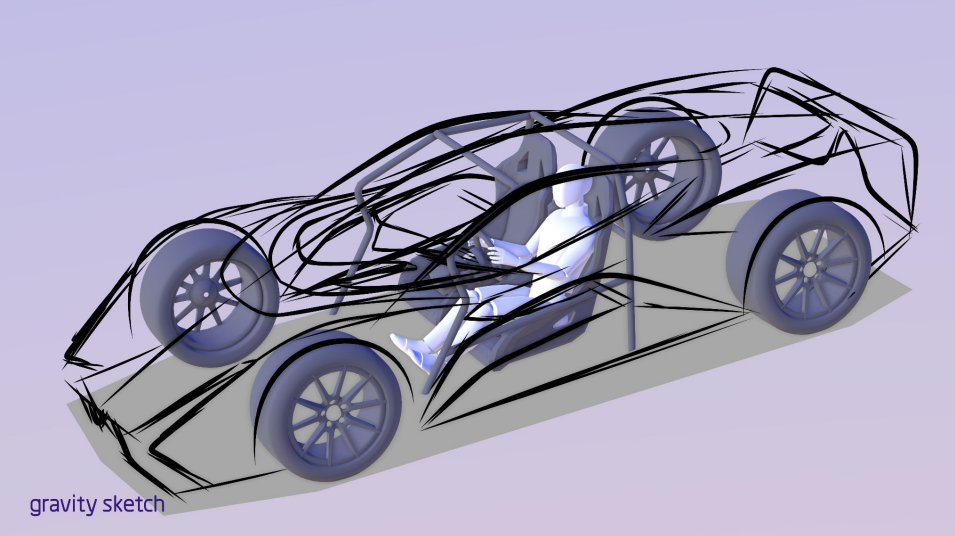
- *Import & Export to Alias, VRED, Blender*
- *Presentation Tips*

# Onboarding & Basic Sketching

- [Getting Started in Gravity Sketch](#)
- [Your First Sketch Experience](#)
- [Controller Layout](#)
- [Sketching, Colors, Materials, and Moving in Space](#)
- [Sketching Tools & Brush Library](#)
- [Delete, Undo, & Timeline](#)
- [Beginner Tutorial: Landing Pad](#)
- [Collaborating with Others in Collab](#)
- [Beginner Tutorial: Mirror Tools](#)
- [Importing a Prefab Race Car Chassis from the Reference Library](#)

## Demo: 3d Sketching a Race Car Body over Prefab Chassis

**Homework:** Develop a series of side view sketches for an original, futuristic car design. If your focus is more toward 3D modelling, you may select sketches from another designer.

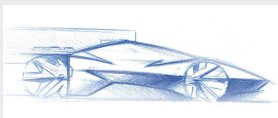


## Session 2

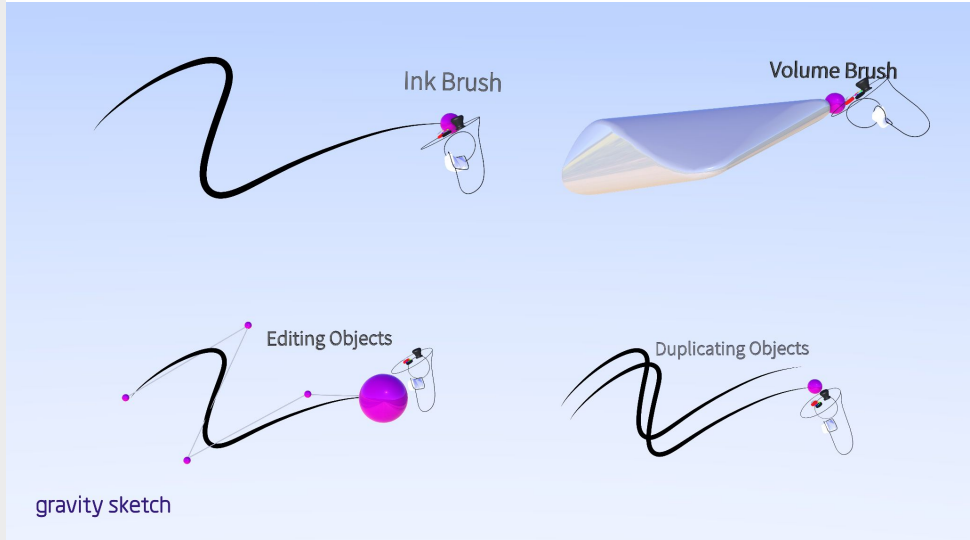
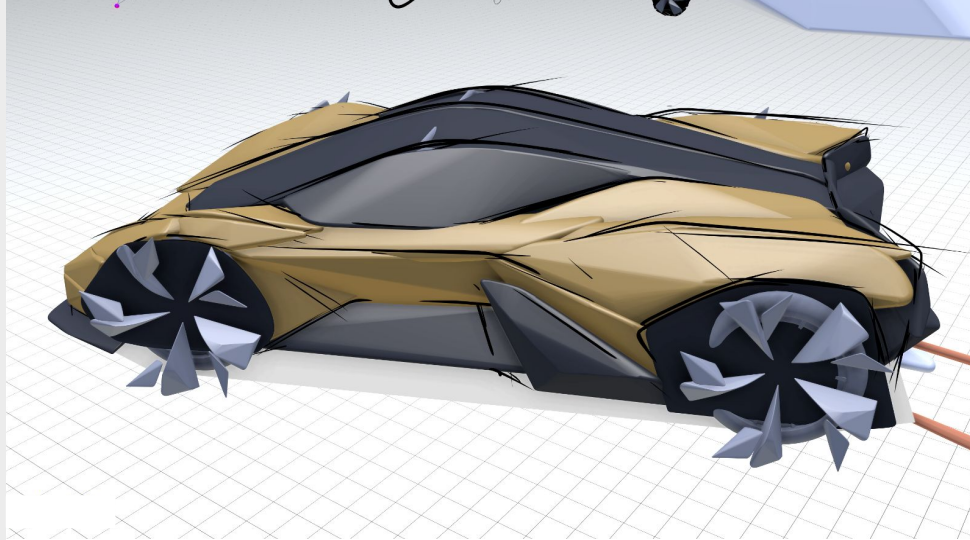
# 3D Sketching & Form Discovery

- [Beginner Tutorial: How to Edit Objects](#)
- [Duplicating & Deleting Objects](#)
- [Grouping & Ungrouping Objects](#)
- [How to use Smart Move for Precision Movement](#)
- [How to Use Tool Box](#)
- [Beginner Tutorial: How to Use the Volume Tool](#)

## Demo: 3D Sketching Rough Surfaces with Volume Brush



**Homework:** Upload your own 2D side view sketch to Landing Pad! In the next session we'll show you how to import your 2D sketches and turn them into 3D wireframes!



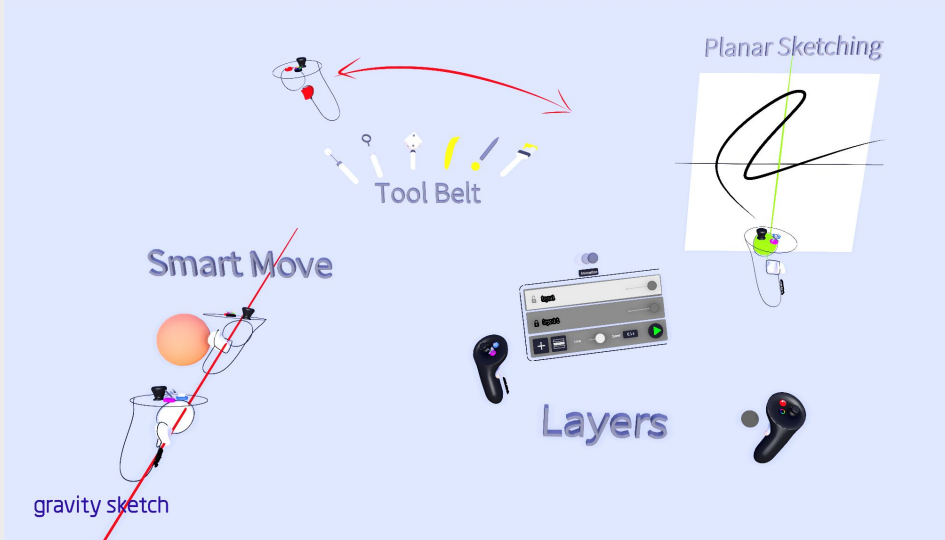
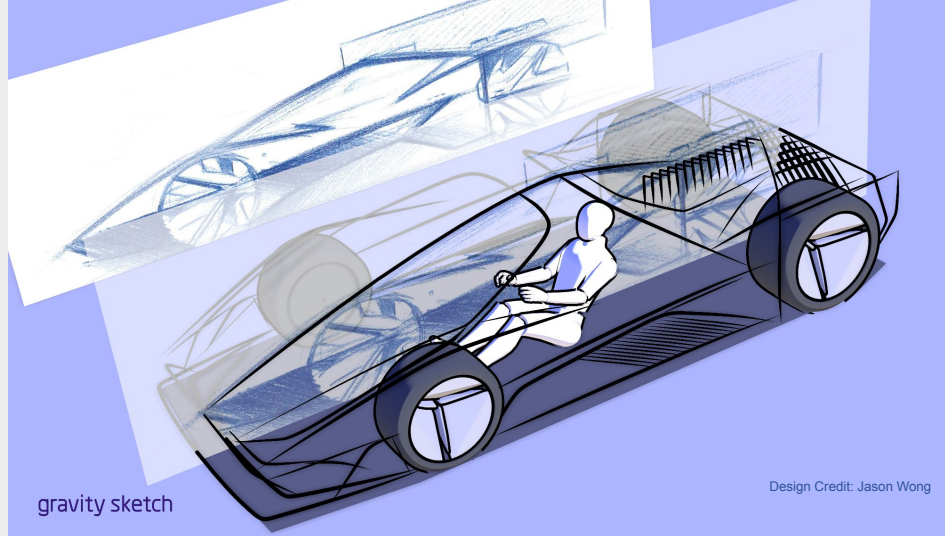


# Turning Your 2D sketches into 3D Wireframes

- [Importing 2D Sketches & Reference Images](#)
- [Building a Vehicle Package with Rigged Chassis](#)
- [Positioning & Scaling a Mannequin](#)
- [Planar Sketching](#)
- [Editing Control Points](#)

## Demo: Building a 3D Wireframe Model from your side view sketch

**Homework:** Using your side view sketch and 3D drawing as a reference, start building a precise wireframe model.

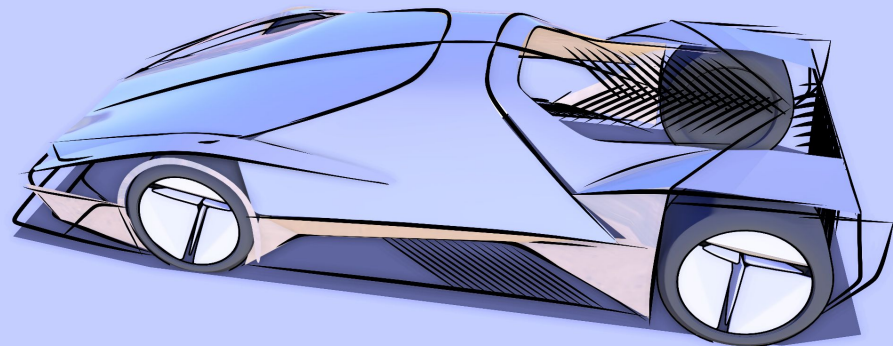


# Basic Surfacing

- [Beginner Tutorial: Using the Surface Tool](#)
- [Building Sub D Surfaces with Ribbon Stroke Tool](#)

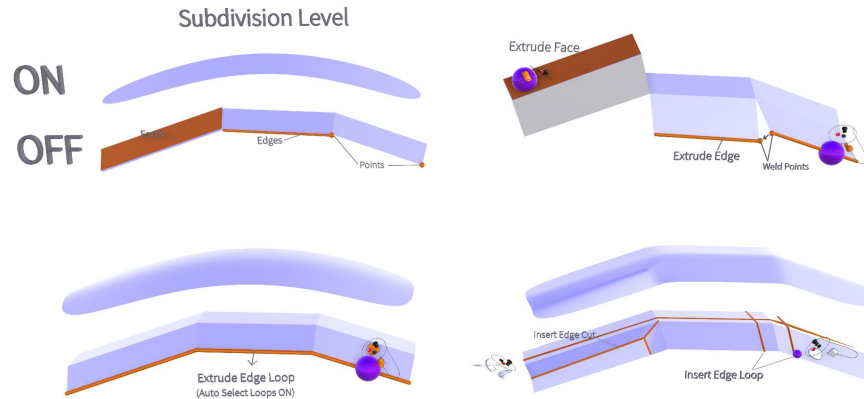
## Demo: Building a Sports Car in SubD with Ribbon Stroke: Part 1

**Homework:** Using your 3D Drawing as a reference, start building a Sub-D surface model



gravity sketch

Design Credit: Jason Wong



gravity sketch

# Building Your Model in SubD

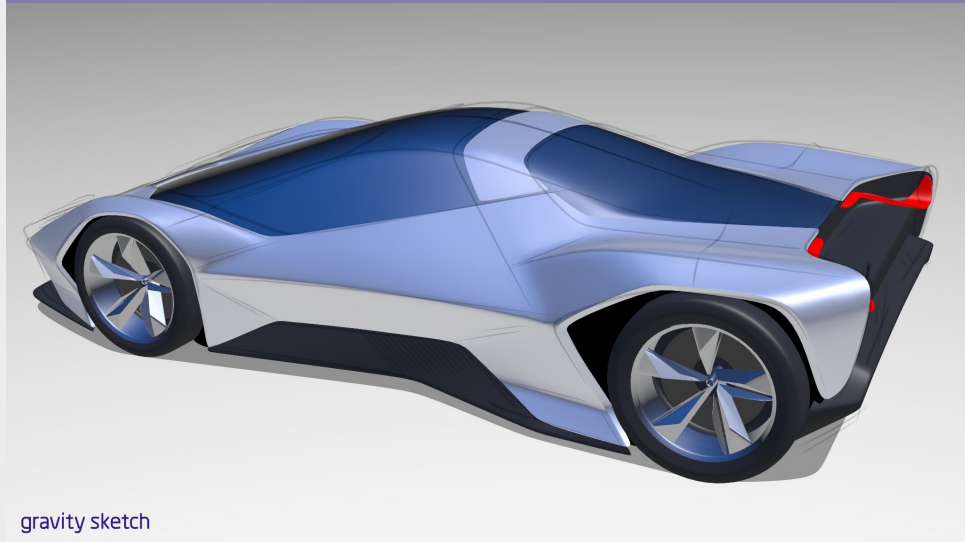
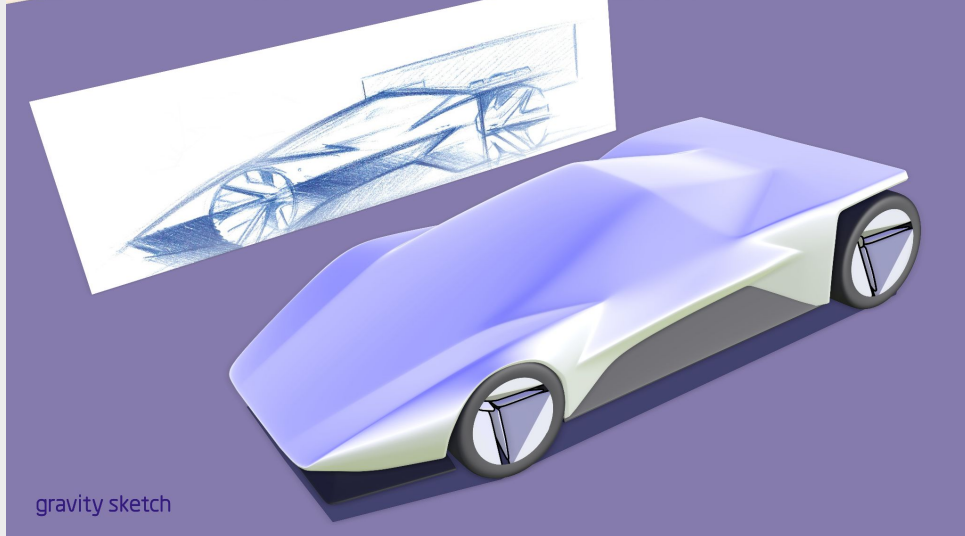
- Merging Sub-D Surfaces into a single body
- Controlling Surface Transitions
- Strategies for good topology
- Reflection and highlight refinement

## Advanced Sub-D Modeling:

- Body & Glass separation, lamp details
- Building wheels with Polar Symmetry
- Body panel cut lines

## [Demo: Building a Sports Car in SubD: Part 2](#)

**Homework:** Continue developing and refining your Sub-D Surface Model



# Video Tutorials: Integrating GS into Your Workflow

- [Exporting Gravity Sketch Sub-D Models to Alias](#)
- [Importing Alias Sub-D Models to Gravity Sketch](#)
- [Importing Alias NURBS Models to Gravity Sketch](#)
- [Exporting 3D sketches as Alias CV Curves](#)
- [Exporting NURBS Models & Meshes to Alias](#)
- [Exporting to VRED](#)
- [Gravity Sketch to Blender Workflow](#)

