



2025 AP[®] 3-D Art and Design

Sustained Investigation

Analytic Scoring Rubric and Score Rationale

Row B—Score 3

Written Evidence

Sustained Investigation

Identify the inquiry that guided your sustained investigation.

Response:

How can airport spaces—often impersonal and transitional environments—be reimagined through interactive furniture, sculptures, and architecture that reflect the movement, memory, and emotions of travel and flight? My investigation focuses on transforming waiting areas, entrances, and parks in and around airports into experiential landmarks to enhance our experiences at airports. My created forms are inspired by the dynamic and mechanical nature of aircraft, the physics of flight, and evocative travel narratives to bridge design with my cultural identity. How can design transcend expectations?

Describe ways your sustained investigation developed through practice, experimentation, and revision.

Response:

To understand the nature of how things work, I believe you have to take things apart. I visually deconstructed airplane wings, engines, and terminals to create and sketch my ideations. Through repeated experimentation with foam, acrylic, and structural elements, I redefined the symbolic and structural integrity of flight elements. Through my investigation I learned to adjust curves to experiment with the laws of aerodynamics and added collaged imagery to reflect memories created during travel. Each revision helped integrate visual interest, function, and emotional resonance in public spaces.

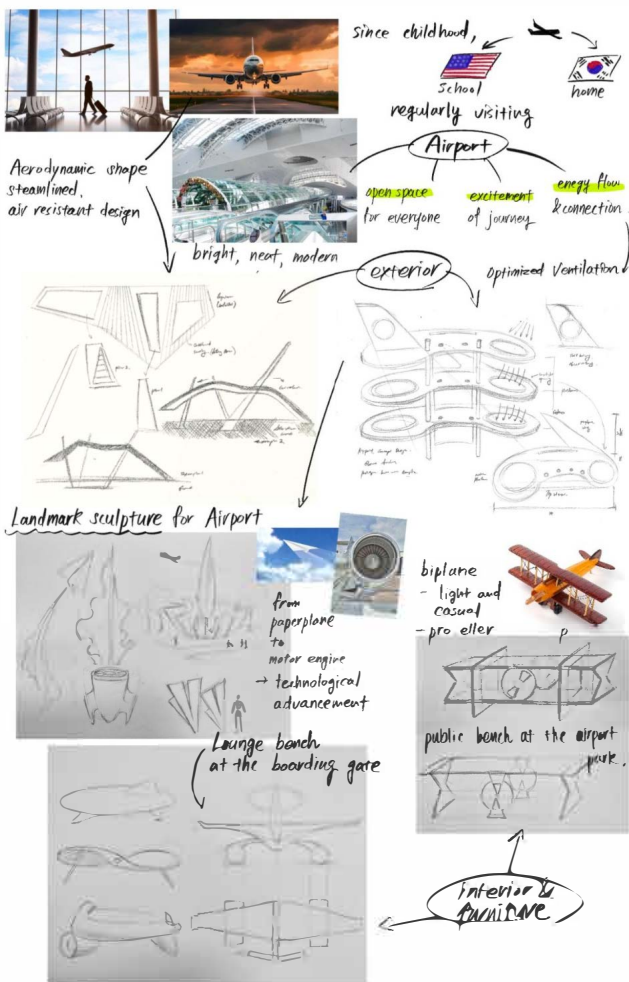


Image 1

Sustained Investigation

Height: 10.7

Width: 16.3

Depth: N/A

Materials:

Mixed media (hand-drawn pencil sketches, ink annotations, reference photos, and digital collage)

Process(es):

Brainstormed airport-inspired design ideas and sketched multiple sculptural and furniture concepts.

Use of Digital Tool(s): Yes

Digital Tool(s) used:

Photo editing/collage app for layout on iPad

Citation(s):

Photos used purely as visual references to develop sculptural and furniture ideas.

Image 2

Sustained Investigation

Height: 7.1

Width: 11.8

Depth: 4.7

Materials: Sketch paper, pencil

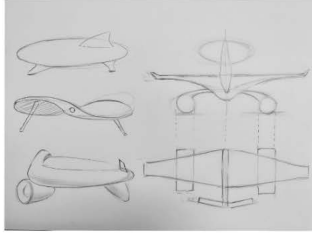
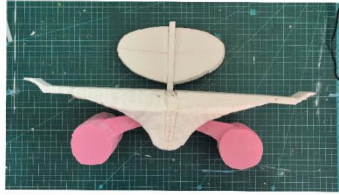
Process(es):

Concept sketches of airport lounge benches inspired by aircraft silhouettes.

Use of Digital Tool(s): No

Citation(s):

Based on personal airport observations and aircraft references.



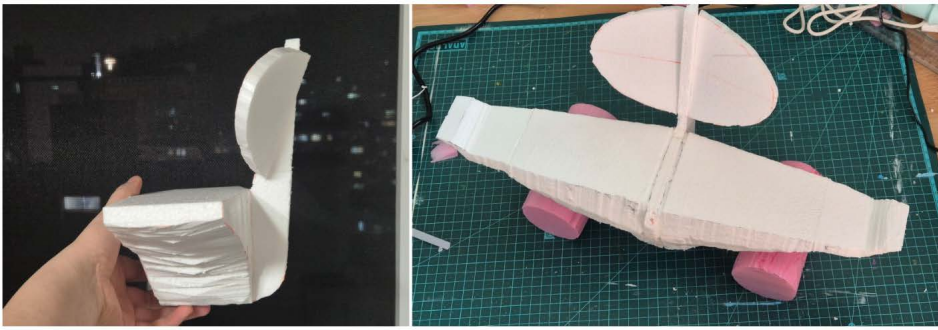


Image 3

Sustained Investigation

Height: 7.1

Width: 11.8

Depth: 2.8

Materials: Styrofoam

Process(es):

Hot-wire cut foam, glued and sanded structure in airplane form.

Use of Digital Tool(s): No

Citation(s):

Proportions referenced from airplane wings and fuselage design.



Image 4

Sustained Investigation

Height: 7.1

Width: 11.8

Depth: 4.7

Materials:

Styrofoam, Handycoat, gesso, printed airplane images

Process(es):

Foam shaped, coated, and collaged with images to create a mixed-media sculpture.

Use of Digital Tool(s): No

Citation(s):

Airplane images from personal travel photos and online archives.

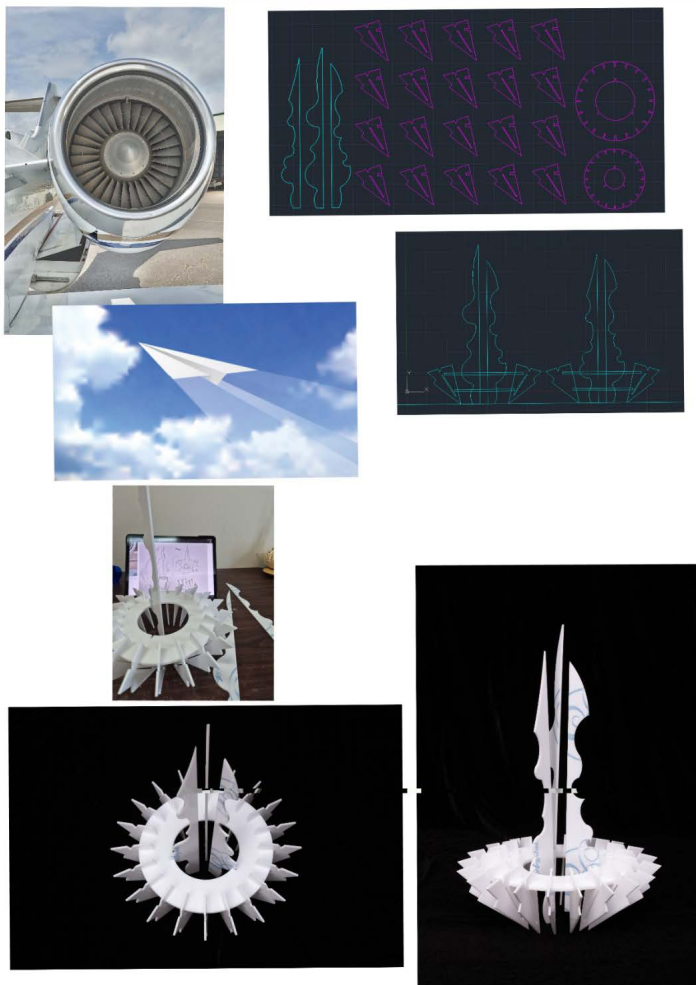


Image 5

Sustained Investigation

Height: 15.7

Width: 8.7

Depth: 8.7

Materials:

White foam board, PVC rod, digital CAD sketches

Process(es):

Jet turbine&paper plane-inspired sculpture, hand-built from layered foam to show airflow in motion.

Use of Digital Tool(s): Yes

Digital Tool(s) used: CAD

Citation(s):

References include real turbine engines and animation stills of flying paper planes.

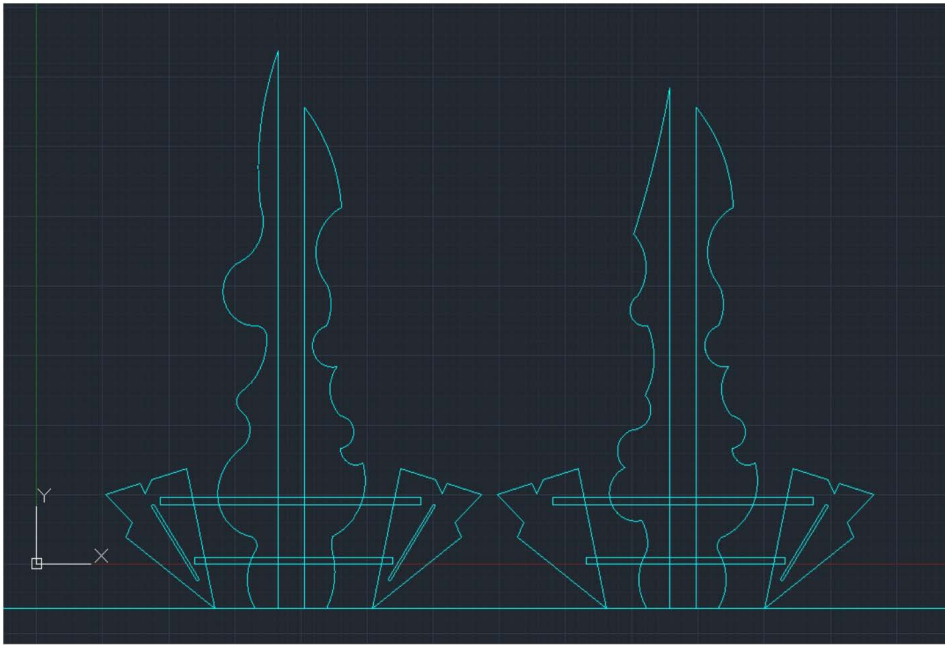


Image 6

Sustained Investigation

Height: N/A

Width: N/A

Depth: N/A

Materials: Digital CAD (AutoCAD)

Process(es):

CAD 2D layout for interlocking sculpture, balancing symmetry with turbine and paper plane forms.

Use of Digital Tool(s): Yes

Digital Tool(s) used: CAD

Citation(s):

Based on original sculpture design, referencing jet turbine forms and folded paper planes.

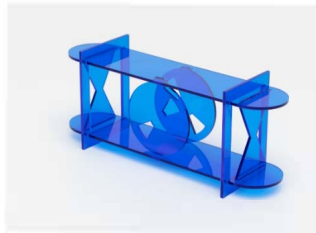
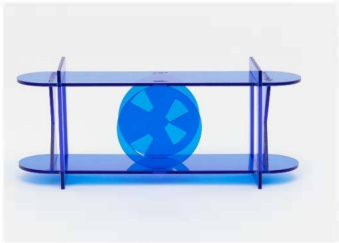
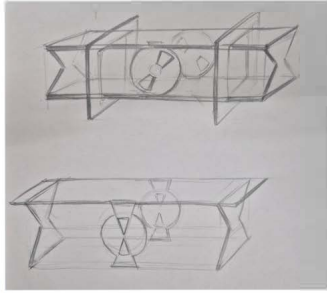


Image 7

Sustained Investigation

Height: 4.1

Width: 9.8

Depth: 2.4

Materials:

Acrylic sheets (laser-cut), marker sketches, digital sketches

Process(es):

Biplane-inspired bench with laser-cut acrylic, echoing propeller and wing symmetry in structure.

Use of Digital Tool(s): Yes

Digital Tool(s) used: CAD

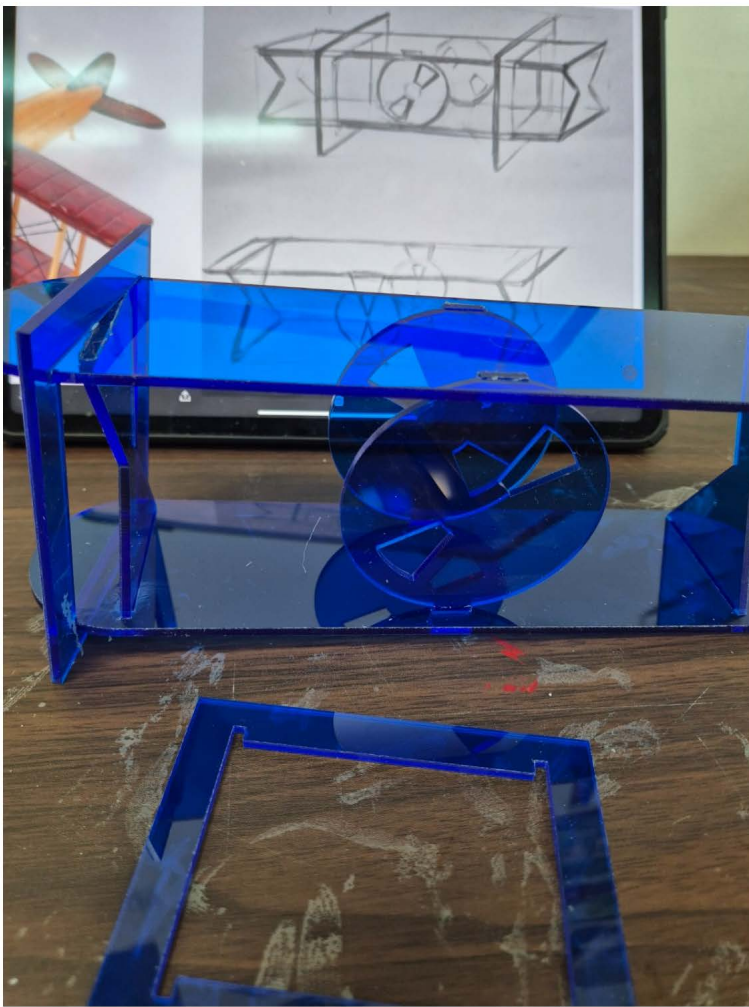


Image 8

Sustained Investigation

Height: 4

Width: 10

Depth: 3.5

Materials: Blue acrylic

Process(es):

Faced multiple CAD design failures;
tested assembly and revised slot
structure repeatedly.

Use of Digital Tool(s): Yes

Digital Tool(s) used: CAD

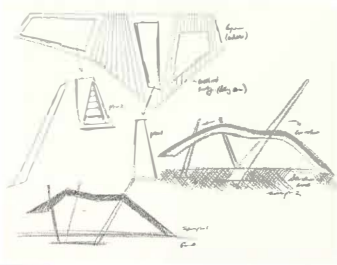


Image 9

Sustained Investigation

Height: 9.4

Width: 11.8

Depth: 7.9

Materials: Foam board, brass pins

Process(es):

Designed with airport ceiling curves in mind; manually cut, scored, and assembled to curve smoothly.

Use of Digital Tool(s): No

Citation(s):

Reference photo of Incheon Airport ceiling used for structural design inspiration.

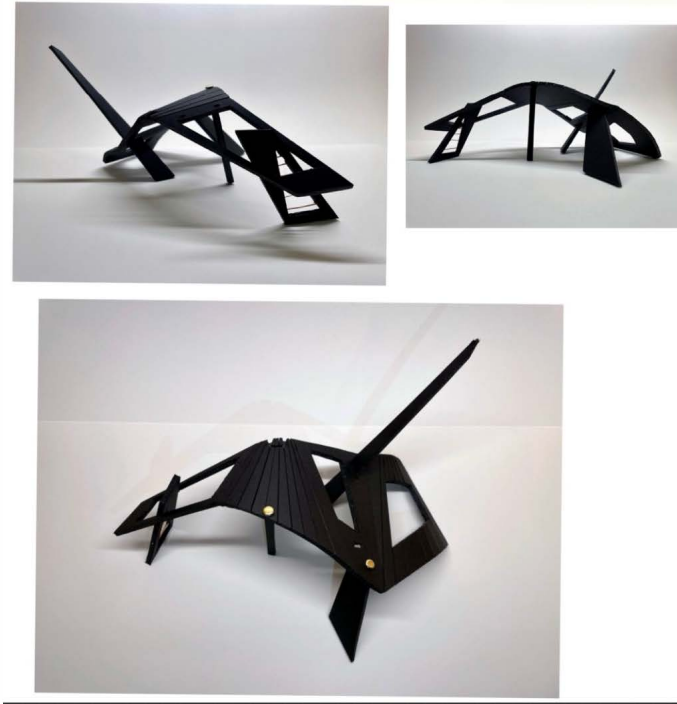




Image 10

Sustained Investigation

Height: 6

Width: 12

Depth: 6

Materials: Styrofoam board

Process(es):

Recreated curved ceiling design in foam; failed several times before precise cuts succeeded.

Use of Digital Tool(s): No

Citation(s):

Incheon Airport ceiling reference photo used to guide structure and window proportion.

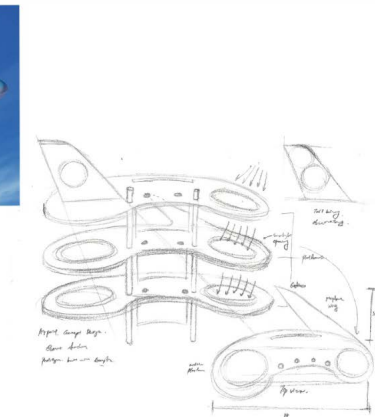


Image 11

Sustained Investigation

Height: 9.4

Width: 11.8

Depth: 7.9

Materials:

Acrylic, stainless steel bolts, plastic rods

Process(es):

Drafted in Illustrator, laser-cut acrylic, manually assembled with metal joints and bolts.

Use of Digital Tool(s): Yes

Digital Tool(s) used: CAD

Citation(s):

Korean Air plane and wing photos referenced for shape and color palette.

Image 12

Sustained Investigation

Height: 8

Width: 14

Depth: N/A

Materials: Pencil on paper

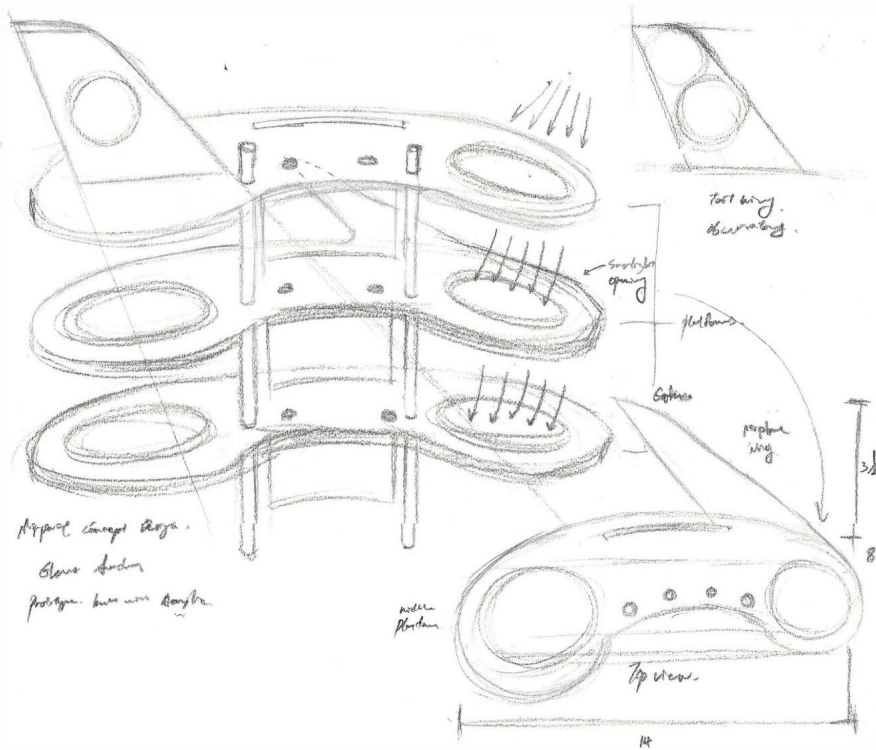
Process(es):

Sketched concept of a layered airport bench inspired by airplane wings and airflow

Use of Digital Tool(s): No

Citation(s):

Wing structures of Korean Air aircraft were referenced for aerodynamic layering



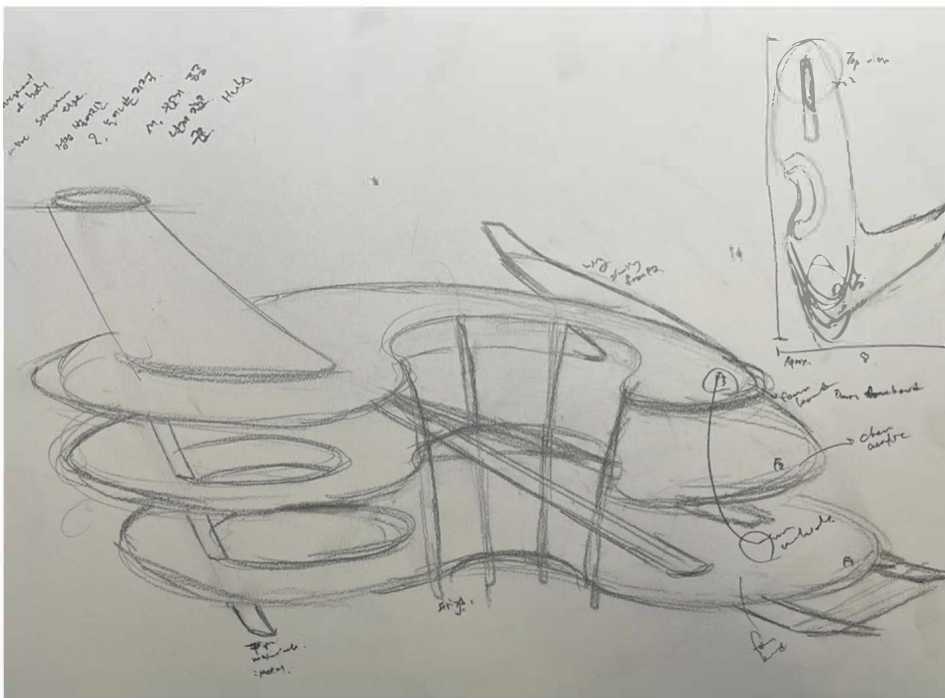


Image 13

Sustained Investigation

Height: 8

Width: 14

Depth: N/A

Materials: Pencil on paper

Process(es):

Refined the layered bench sketch, adjusting form, curves, and stabilizing structure

Use of Digital Tool(s): No

Citation(s):

Inspired by aircraft tail and cabin geometry for balance and structure



Image 14

Sustained Investigation

Height: 9

Width: 14

Depth: 4

Materials:

White and black acrylic, metal bolts, rods

Process(es):

Laser-cut each shape and manually drilled holes for bolts; assembled by hand

Use of Digital Tool(s): Yes

Digital Tool(s) used: CAD

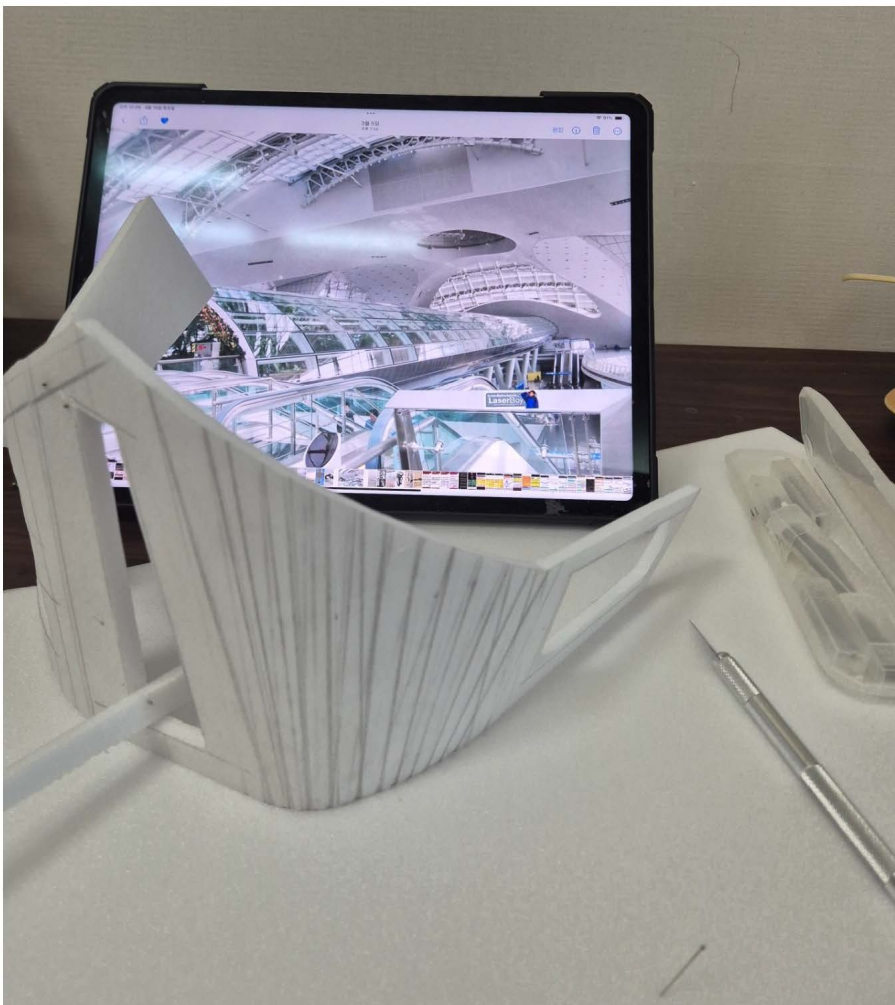


Image 15

Sustained Investigation

Height: 8

Width: 13

Depth: 4

Materials:

Foam board, pen, precision knife

Process(es):

Hand-cut curved elements and lined surface to mimic ceiling ribs from reference image

Use of Digital Tool(s): No

Citation(s):

Incheon Airport ceiling photo used as reference for form and architectural lines

Analytic Scoring Rubric Row B: Practice, Experimentation, and Revision

Writing Prompt 2: *Describe ways your sustained investigation developed practice, experimentation, and revision.*

1	2	3
Visual evidence of practice, experimentation, and revision does not relate to a sustained investigation.	Visual and written evidence of practice, experimentation, and revision relates to a sustained investigation.	Visual evidence of practice, experimentation, and revision demonstrates development of the sustained investigation. AND Written evidence describes ways the sustained investigation developed through practice, experimentation, and revision.

Score Rationale

This portfolio earned a score of 3 because both the visual and written evidence of practice, experimentation, and revision clearly demonstrate the development of the sustained investigation. The inquiry explores how airport environments can be reimaged through interactive design that reflects the movement, memory, and emotion of flight. The written evidence explains how forms were inspired by airplane parts and how multiple materials were tested and adjusted for structure and function. The student describes specific revision strategies—such as “tested assembly and revised slot structure repeatedly” in Image 8—showing how physical construction informed iterative changes.

The visual evidence supports this process. For example, in Images 2 through 4, the transition from sketch to foam model to collaged sculpture demonstrates evolving thinking in both concept and form. Across the portfolio, sketches are refined into CAD renderings and final constructions, with multiple approaches to layering, curvature, and visual flow. The development of the acrylic bench (Images 7 and 8) further highlights revision through digital and physical testing. Together, these works show thoughtful refinement and increasing control over structure, design, and symbolism throughout the investigation.

Summary: Visual and written evidence of practice, experimentation, and revision clearly support the development of the sustained investigation. Consistent refinement of materials, structure, and concept supports a score of 3 in Row B.



Image 7

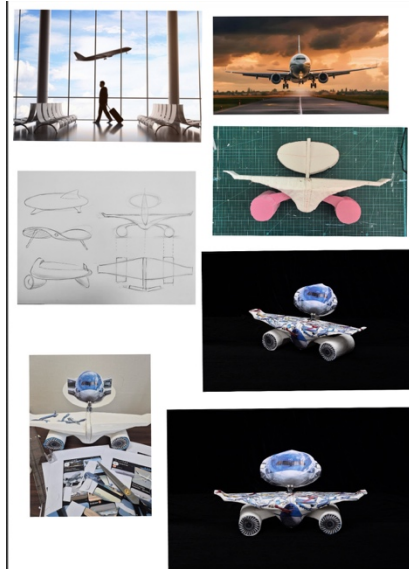


Image 2

Sustained Investigation Score: Row A: Score: 3 • **Row B: Score: 3** • Row C: Score: 2 • Row D: Score: 3