

PROJECT 03: Pavilion

DUE: December 20th, 2019

CONTEXT:

There is a long tradition of pavilions in architecture history. Pavilions are often experimental structures in which an architect can test his or her ideas. For this project you will be designing a pavilion that will function as a “gateway”. This prohas a broad meaning in architecture, transportation and computation.

Choose one of the following structural or formal systems: Gridshell, Repeating Module/ Space filling polyhedra, Weaving, Bent-Plate, Catenary form-finding, Minimal Surface form-finding, Circle/ Sphere Packing, Geodesic, Tensegrity, Moire Effect, Bending, Tongue and Groove, etc.

The best proposals will be invited to build a full scale pavilion for the City Tech Foundations “Best of New York Fundraiser” next fall or for “Fab Fest” in the University of Westminster, London in July (if it happens).

For the final project you will design a pavilion in groups of 3. You will build a full scale section (generally the footprint for this portion of the model must be 3’x9’) and a scaled model of the pavilion (no smaller than 1/2” = 1’). The pavilion must not be larger than 9’x9’x6’. The main source of material to be used is corrugated cardboard (exception will be made for structural systems that require alternate materials). It can be free standing, hanging, or cantilevering. Designs need to take properties of the material into account and take advantage of their structural capabilities.

The design strategy will be sequenced accordingly:

- Concept
- Structural System
- Form
- Connection Details
- Back to Form, Structural system and Concept

OBJECTIVE:

Design and build a pavilion in collaborative groups of two or three employing fabrication and computational methods.

DELIVERABLES:

- **Drawings:** Idea Design Sketches (5-10), Axonometrics (From all Sides), Plan, Elevations, Sections, Details and Assembly Instructions. (10-15 Pages 11x17 PDF + 3d Model)
- **Video/Animation:** Assembly and Install (Both Small and 1:1 Scale Model) (Quicktime or AVI-format)
- **Visualizations:** Descriptive Pictures/Visualizations of the Concept (QTY: 10-20 Raw Photos and or

- 2-3 300dpi JPG Visualizations)
- **Model:** 1:1 Scale Sectional
 - **Model:** Scaled Pavilion (Scale to be determined by proposed design) parts are to be designed with the full scale pavilion in mind. Full scale parts would need to fit on the laser cutter bed. See the City Tech [Fab Lab](#) Website for Details.
 - **Model:** 1:1 Prototypes of Joining Methodologies

EXECUTION PLAN / DUE DATES:

November 15th- Concept: Project Review, Group Assembly and Discussion Sketching Ideas
November 22nd - Exploration of Structural system (cardboard and chipboard sketch models)(Group Desk Crits) not overall form!
November 27th - Massing and Form of pavilion incorporating structural system (Group Desk Crits)
December 6th - Scaled Model (Group Desk Crits)
December 18th- Connection Details with Sectional 1:1 Model (Group Desk Crits)
December 20th - Final Presentation

REFERENCES:

[FAB FEST](#)
[80 HRZ](#)











