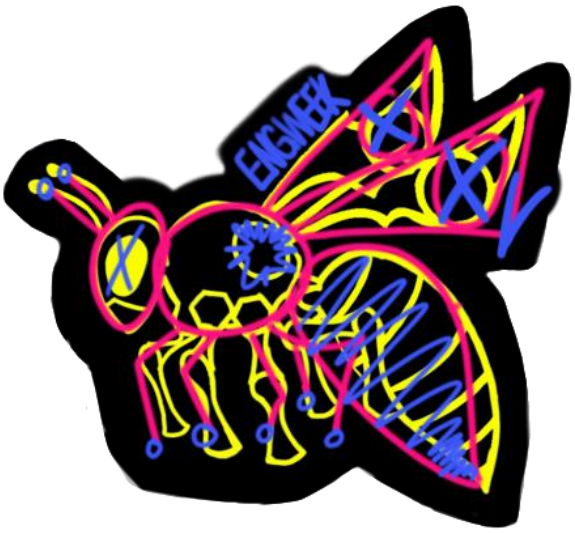
ENGWEEK 2025



Building Design

Presented by:

Concordia University Building Engineering Society (CUBES)
Engineering and Computer Science Association Concordia

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1. Competition Overview

The LEGO Building Competition is a timed event where teams will be provided with a mini 3D-printed building model and a bag of LEGO pieces. The goal is to accurately reproduce the building within a 2-hour time limit. Teams will be judged based on accuracy, structural stability, and attention to detail.

2. Team Structure

- Each team will consist of 2-4 participants.
- Teams must work together efficiently to complete their building within the allocated time.

3. Materials Provided

- One mini 3D-printed building model (to be replicated).
- A pre-selected bag of LEGO pieces.

4. Judging Criteria

Teams will be scored out of 100 points based on the following criteria:

4.1 Structural Accuracy (40 points)

- The overall shape and proportions closely match the 3D-printed model.
- The structure is properly aligned and symmetrical.
- Key architectural elements are replicated correctly.

4.2 Minimum Dimension Requirement (20 points)

- The final building must reach a maximum height of 25 cm.
- The building must have a minimum base of 36 cm2.
- Buildings below this height will receive a reduced score.

4.3 Scale Accuracy (20 points)

- The overall proportions of the LEGO building match the dimensions of the 3D-printed model.
- Elements are appropriately sized in relation to the rest of the structure.
- The scale remains consistent throughout the building.
- Please mention the scale **1:XX**.

4.4 Stability & Construction Quality (10 points)

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- The building is structurally sound and stable.
- Connections between LEGO pieces are secure with no loose elements.

4.5 Presentation (10 points)

- Teams must present their completed building to the judges.
- The presentation should include the name of the building, some basic information, key details, and how the building maintains proper scale.
- Clear and confident explanations will contribute to the score.
- The presentation will last 3 minutes followed by 1-2 minutes of questions from the judges.

5. Submission Requirements

Each team must submit the presentation (3 minutes) to president.cubes@ecaconcordia.ca in PDF format before the deadline. File names should follow the format: [TeamNumber_TeamName].

6. Competition Rules

- Teams must not modify the 3D-printed model.
- Judges will assess buildings after the 2-hour time limit; no further modifications are allowed after time is called.
- Any team found violating rules may be disqualified.

7. Scoring & Awards

- Judges will evaluate each team's building based on the scoring criteria.
- The team with the highest score will be declared the winner.
- In the case of a tie, judges will conduct a secondary review based on attention to fine details.

8. Code of Conduct

- Teams must demonstrate good sportsmanship and teamwork.
- Members are allowed to exchange LEGO pieces with other teams.
- Any form of cheating, tampering, or unsportsmanlike behavior will result in disqualification.
- Respect for judges, fellow competitors, and event organizers is expected at all times.

9. Final Notes

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- Judges' decisions are final and cannot be contested.
- The competition is meant to be fun, educational, and a test of creativity and precision.
- Participants should enjoy the challenge and strive for excellence in their buildings!

Evaluation Summary

Structural Accuracy	/40
Minimum Dimension Requirement	/20
Scale Accuracy	/20
Stability & Construction Quality	/10
Presentation	/10
Total	/100