

CEC 2019
CCI 2019



Programming Programmation

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Before we start...

- Asking questions
 - Will explain in presentation so wait
- Presentation package
 - Has all info available in this presentation
 - Also available online at link given



The Challenge and Design Requirements

Page 8-11



Objective

- Design a cleaning robot for an eatery
 - Various trash is spread across the room
 - Needs to clean everything fast
- Create the AI that runs this robot
 - Hardware is already designed for you
 - Robot uses specific API commands



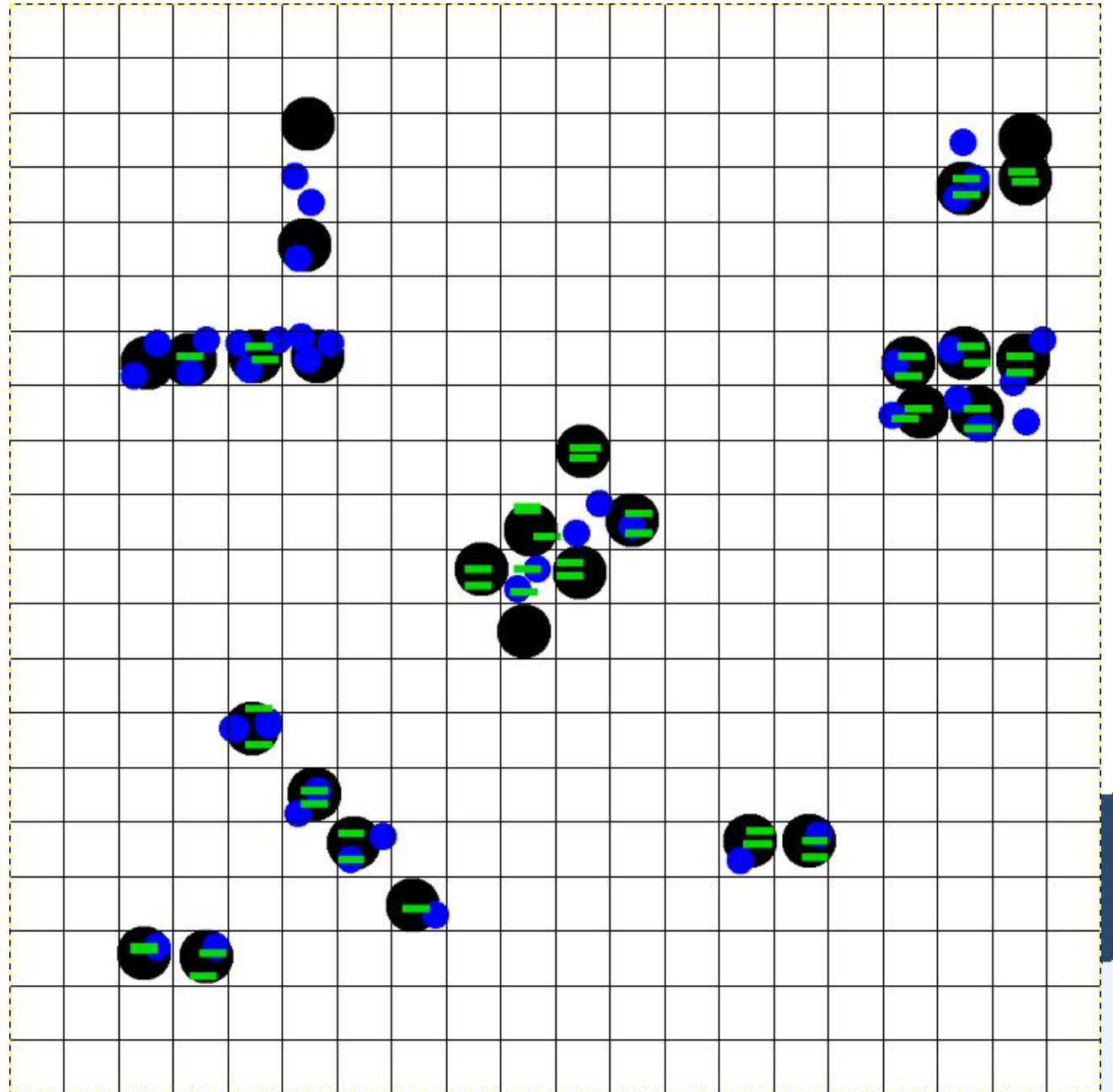
Example Layout

Black = Garbage

Blue = Recyclable

Green = Organics

See package for more details.



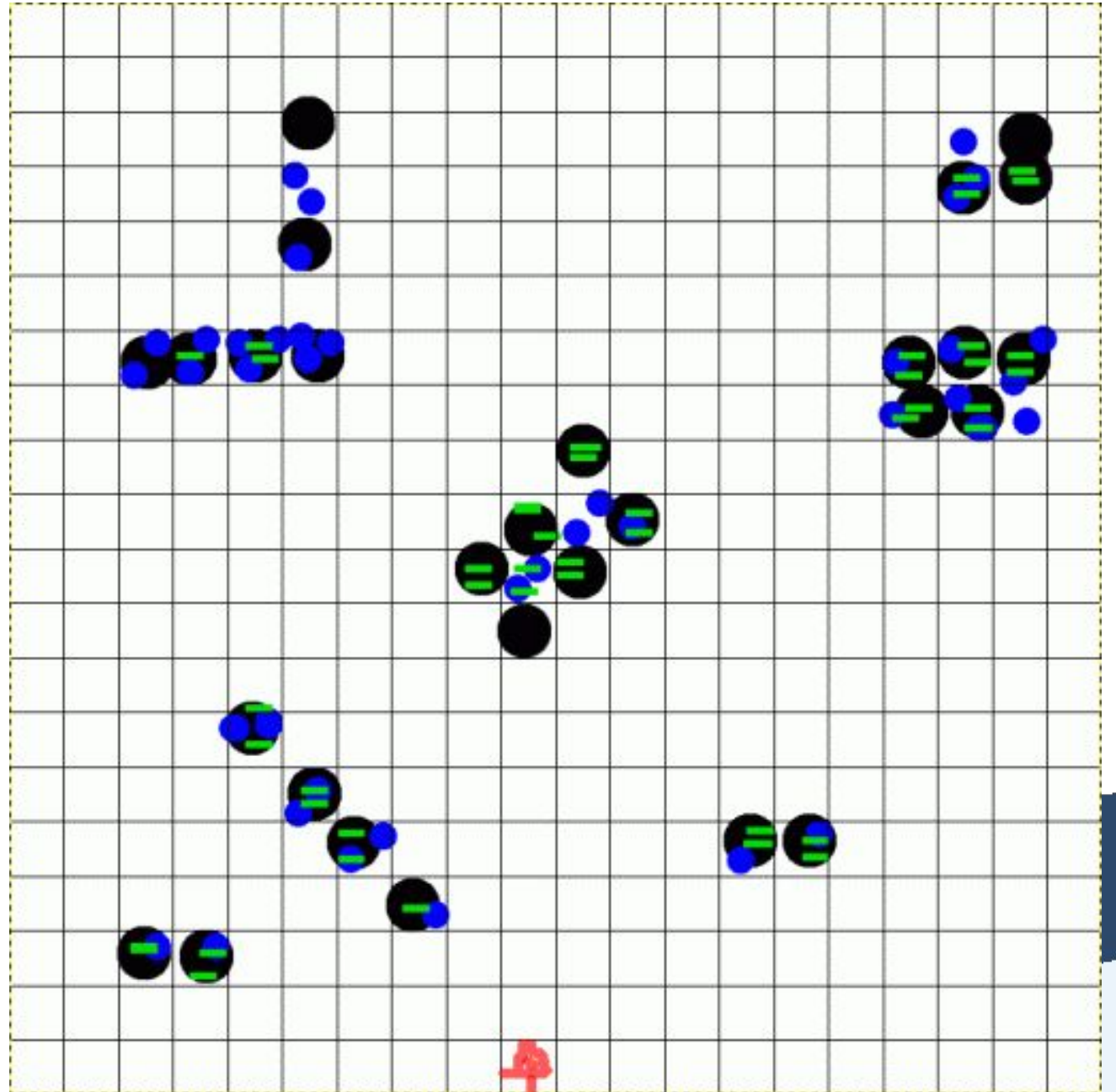
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API

- Uses standard REST conventions
 - JSON response with payload
 - Type is SUCCESS/FAILURE/ERROR
 - Rate-limited for development
- Instance-based
 - POST/GET/DELETE your specific instance
 - Will have all necessary information
- More documentation in package
 - Page 16-20



Judging Matrix

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Presentation	<ul style="list-style-type: none">• Design process• Design justification• Critique of the design• Presentation delivery	20%
Strategy/Algorithm	<ul style="list-style-type: none">• Simplicity• Ingenuity• Ability to achieve desired outcome	40%
Code	<ul style="list-style-type: none">• Structure• Readability• Code efficiency	30%
Resource Management	<ul style="list-style-type: none">• Memory usage efficiency• Program's CPU usage	10%
Total		100%



Timeline Overview

Page 4-5, 12-14



Asking questions

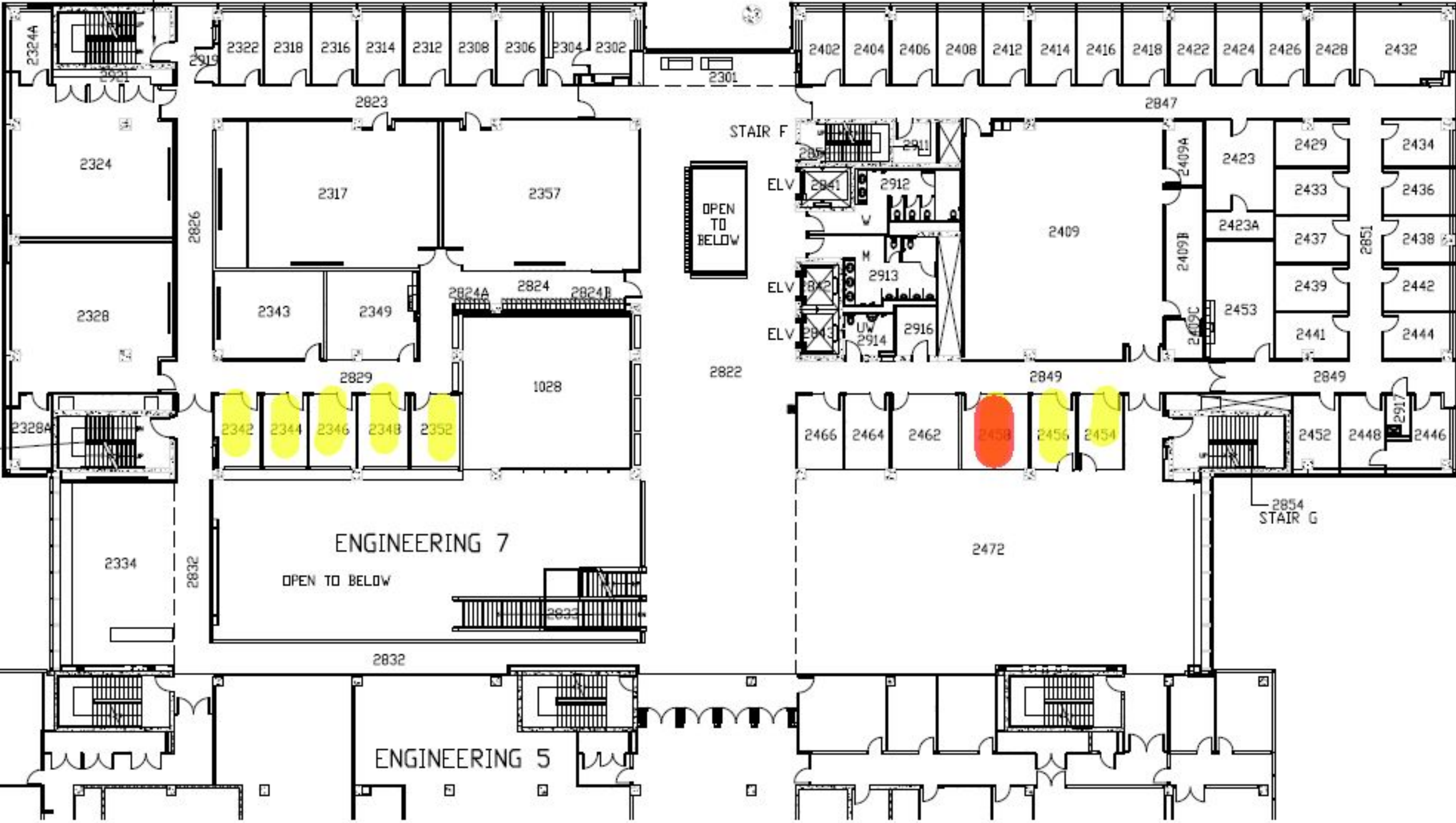
- We have a form where you can ask them
 - Link will be sent to you
 - Opens after this presentation until 5pm
- Responses will be made available to all competitors
 - Allow for a 15 minute delay
 - Only responding to deliverable content-related questions after 10am

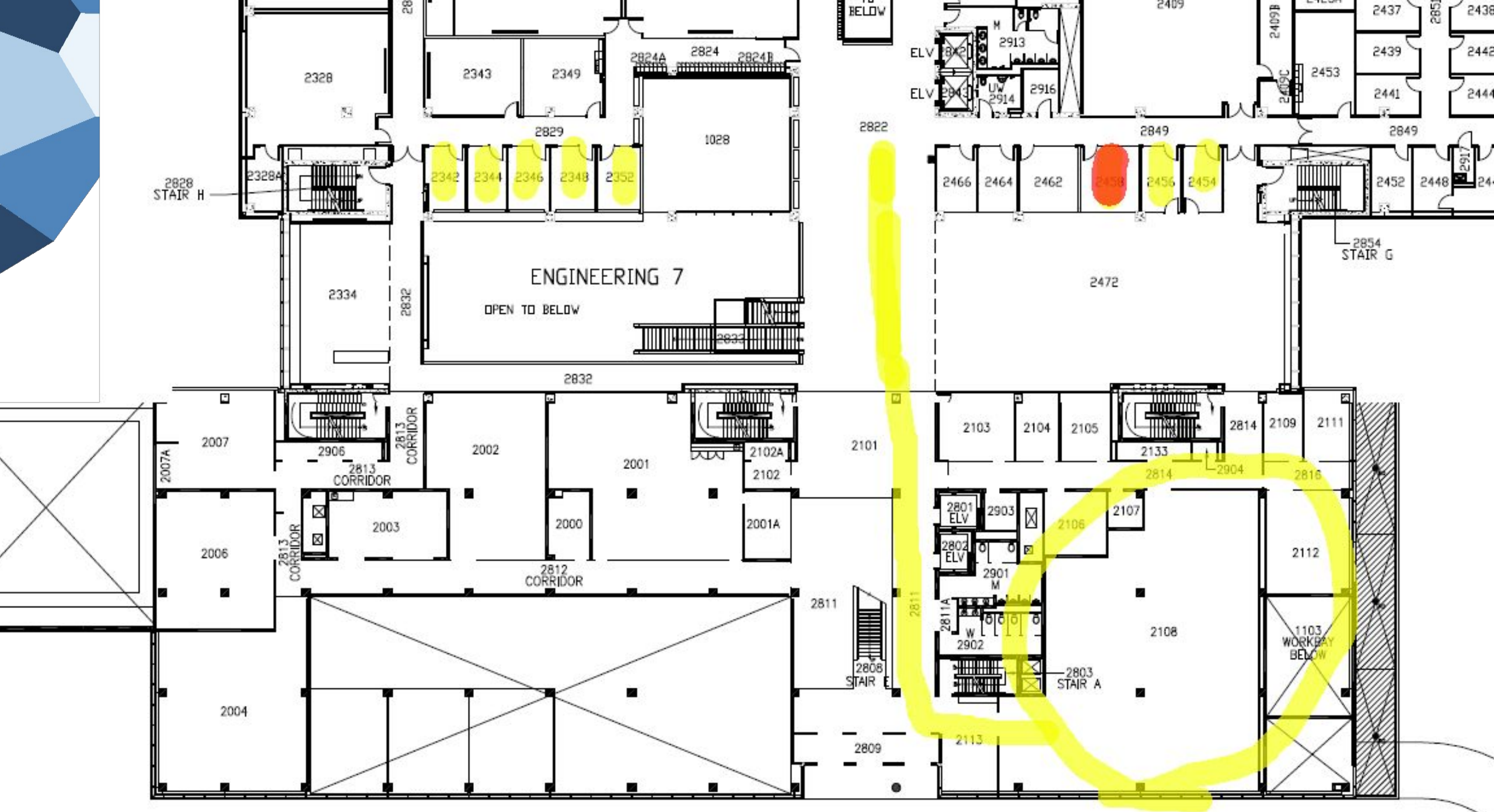


Design phase

- When + Where
 - 8 hours - 10am-6pm
 - Each team gets individual room
 - You can use Gear Lab's computers if needed
- Deliverables
 - USB device containing the following
 - Your source code
 - Instructions on how to run code
 - Your presentation







Presentation phase

- When + Where
 - 30 minutes - 9am-5pm
 - <insert location here>
 - Timeslot randomly assigned at 8am tomorrow
- Deliverables
 - You will be presenting for 20 minutes in front of 3 judges
 - Judges can ask questions for up to 10 minutes
 - You will run your code during the presentation



Any questions? Use the form!

<https://goo.gl/forms/U747f7QX72nEbnvp2>



Don't forget to join the slack!

bit.ly/cci-cec-2019-slack

