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
- If you need access to computers, let me know

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

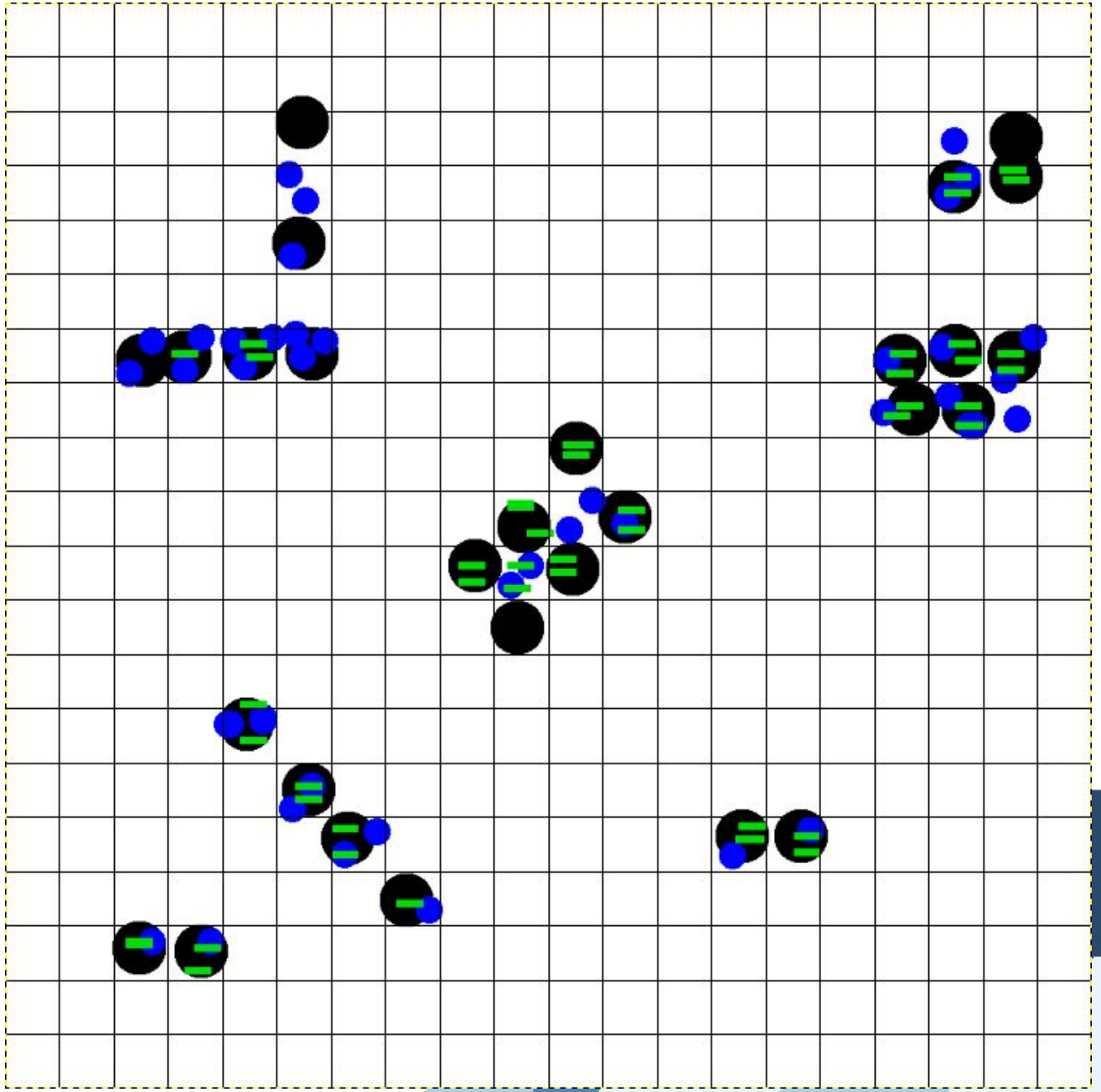
Example Layout

Black = Garbage

Blue = Recyclable

Green = Organics

See package for more details.



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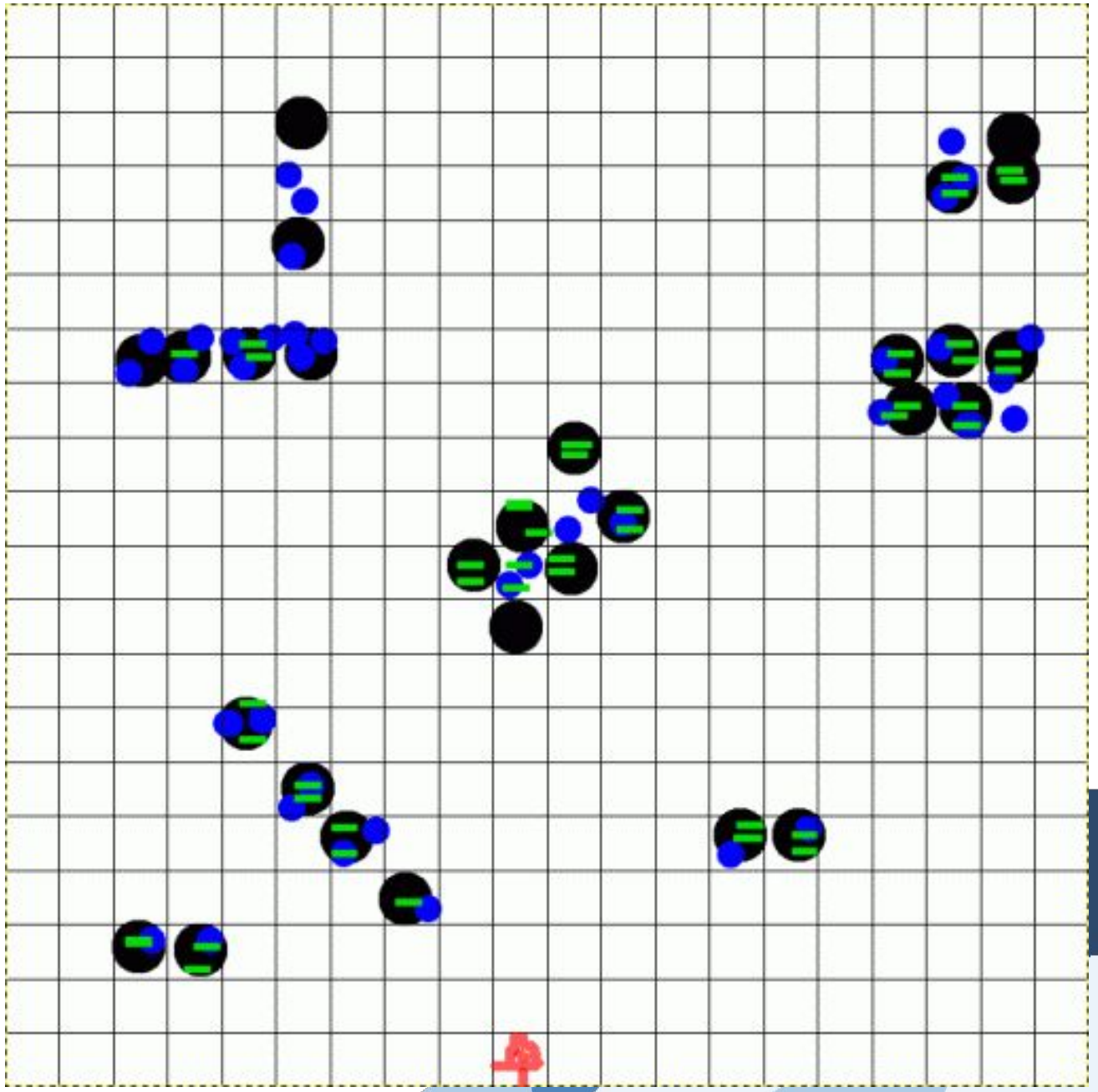

API

- 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

Presentation	• Design process • Design justification • Critique of the design • Presentation delivery	**20%**
Strategy/Algorithm	• Simplicity • Ingenuity • Ability to achieve desired outcome	**40%**
Code	• Structure • Readability • Code efficiency	**30%**
Resource Management	• 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
  - Email (and optionally USB) containing the following
  - Your source code
  - Instructions on how to run code
  - Your presentation

Internet Access

- https://uwaterloo.teamdynamix.com/TDClient/KB/ArticleDet?ID=70250
  - Password: Waterloo2019
- If you need access to computers, let me know

Presentation phase

- When + Where
  - 30 minutes - 9am-5pm
  - E7 3353
  - Timeslot randomly assigned at 7am 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