Intro to Interactive Systems

LEAPS Computing Course

June 5, 2018

Introductions

- **Lecturer:** Teun Krikke
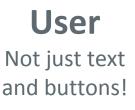- **Teaching Assistant:** Armand Delaville
- **Coordinator:** Frank Broz

Today

- Overview of the course
- Form lab groups
  - Work in groups of 3
- Setup
  - Accounts, devices, etc
- Exercises
  - Intro to the robots and their software

Interactive Systems

- From interfaces … to behaviours

User
Not just text and buttons!

Other People
Share and communicate

Environment
Sense your surroundings

Information
Retrieve, Visualize, Manipulate, Create

Cozmo robot

- Used for programming exercises
  - Python SDK
- Documentation and forums online https://developer.anki.com/
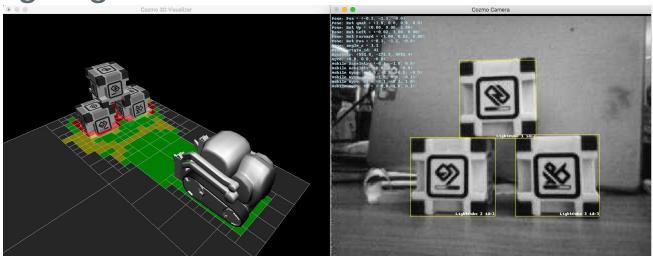
Course Content: Programming

- Intro to OOP concepts in Python
    - Classes and inheritance
    - Methods
    - Variables and operators
    - Loops and conditionals
- Working with APIs
- Basics of software design
- Debugging

Course Content: Robotics

- Intro to interactive systems through robotics
  - Sensing
  - Search and navigation
  - Object detection and manipulation
- Designing interactive behaviour

Course Content: Assessment

- Quiz on python programming
  - Weeks 3 and 6
  - Assessed individually
- Presentations in Week 7
  - On your project implementation
  - Assessed by group

Course Content: Project

- Robot competition!
  - Group programming project
  - Program your group's robot to collect more cubes than its opponent
- Week 7: Class championships

Questions?