

FIGS: Exploring Computer Science

Week Nine: “Cool Stuff”

Announcements

- One Step Ahead Assignment due today!
- You will sit with your final group project teams and work with them today.
- Final Group Presentations next week! MANDATORY ATTENDANCE
- Revisit grades
- Competitive class today. Plenty of opportunities to work with your team-mates.

Lesson 1: Internet of Things (literally everything)

Embedding of physical devices with softwares/sensors/ network connectivity, to enable these objects to collect information and/or communicate.

- Smart Homes
- Smart Grids
- Smart Refridgerators
- Watches
- Amazon buttons

IoT is different from AI! Siri/ Alexa are not IoT!

Activity 1: Come up with your own IoT idea!

0-3 MINUTES: All groups think and come up with a possible object which isn't mentioned yet! Think about how you could use it, and how it can help make things easier!

3-10 MINUTE: Groups present one by one! **Time limit per group: 2 mins**

1st 2 groups to present get 2 bonus points

Each group can earn upto 3 points based on quality of idea, presenting skills, and participation!

Lesson 2: Robotics



Activity 2: Build your neighbor's robot!

Each group write down a Cubelet robot idea on one index card! Take some time to come up with a blueprint of the robot idea (how it should be implemented), and create the blueprint on the **poster**! You have about 7 minutes for this.

You will then swap the idea index cards and build your neighbor's robot by using the index cards as blocks. You have 5 minutes for this

- REFER TO SAMPLE CUBELET INDEX CARDS ON FRONT DESK, AND CREATE IDENTICAL CUBELETS!
- At the end, the scores are calculated. 3 points for the blueprint and 3 points for building neighbor's robot.

Activity 3: THROWBACK TUESDAY

1. One data structure we saw in Week Five
2. One problem with databases
3. Solving a problem by breaking it into similar tiny problems is called?
4. One Rutgers Computer Science club/ association
5. One website built during the website building activity
6. A person who can develop front end and back end is called a?
7. Research papers contain abstract, introduction, conclusion/results. One other section (there can be multiple answers)?

Closing

- Who wins?
- Ordering
- Presentations next week! Email slides to me!
- Pizza next week
- Class picture next week