

# CS 309: Autonomous Robots

## FRI I

Final Project Proposals

Instructor: Justin Hart

[http://justinhart.net/teaching/2020\\_spring\\_cs309/](http://justinhart.net/teaching/2020_spring_cs309/)

# Final Project Proposals – Bring to Debugging (Thur)

- 6 Powerpoint slides
- Three potential final projects
- Two slides for each project
  - 1 slide introduces the “idea” – What the project hopes to accomplish
  - 1 slide introduces the “implementation” – How you think you will do it
- Present as a group in class on Thursday

# Final Project Proposals - Paper

- 1.5 pages minimum (up to 3 pages if you need it)
  - Your text needs to hit the bottom of the second page
- Use IEEEtran style
- Include a list of project milestones and deadlines by which you intend to hit these milestones.
  - This should be **comprehensive**

# Final Project Proposals – Google Drive

- Each group needs a Google Drive directory that I'll make and share with the group in your breakout.
  
- In that directory
  - Status
    - To Do – What needs to be done, updated continually
    - Assignments – Who is currently assigned to work on what aspect of the project
    - Info / Links – What information is needed for work on this project
      - Citations you've found
      - Your github URL
    - Personnel – Who is working on this project?
      - Names, EIDs, emails
      - Are you working with a PhD student or postdoc? Who?
      - Assigned peer-mentor
      - Supervisor – Justin or Xuesu

# Breakouts

- Today we will do breakouts – 30 minutes
- In your breakouts
  - Start to put together what project ideas you want to pursue
  - Think about the technologies, timelines.
    - Be concrete! This is the kick-off of your final project.
  - Think about what will go into your slides.
  - Think about what will go into your proposal document.
  - Think about what will go into your final paper.
- Now is a GREAT time to start concretely writing these things, it will guide your process.

# Final Project Proposals – Outline

These, or something similar, should be the actual section headings in your proposal

# Final Project Proposals – Outline

- Introduction

- What problem are you trying to solve?
- Why is it important?

- Background (optional for this proposal)

- What approaches have been taken before? By whom?

# Final Project Proposals – Outline

- Approach

- What approaches are you considering?
- Is there a piece of software you will develop or run?
- This should be the most thought-out section and should be able half of your proposal.

- Conclusion

- 1 paragraph, less than  $\frac{1}{4}$  page
- Briefly restate your problem and approach, why you think it will work, and what you believe you will have accomplished when you are finished with the project.



# Final Project Proposals – Formatting

- LaTeX is the easiest way
- LaTeX will be *required* for the final paper, but if you want to use something else for the proposal
  - 10pt font
  - Title centered
  - 2 columns
  - 24pt for title
  - 16pt for authors
  - 16pt for section headings