

# AI & Robotics: Research

## Exercise 1

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### 1 Read the TossingBot paper

Find the paper here:

- <https://arxiv.org/abs/1903.11239>
- <https://tossingbot.cs.princeton.edu/>

The paper won Best Systems Paper award at RSS 2019.

For each of the following items, be able to give a brief report (ca. 4mins each):

- List and explain what the authors claim the contributions are, i.e., what precisely is beyond previous work in this paper
- Summarize the different areas of related work. Lookup at least one paper from each of the three sub-sections of the related work section. “Lookup” means: Find the paper and read the abstract, perhaps glimpse at the results.
- Be able to explain Figure 3 of the paper
- Be able to explain Figure 4 of the paper
- The authors start section III by directly introducing to the method. In contrast, be able to explain ONLY what the problem is. Could you provide a concise problem formulation without yet referring to methods? How are objectives and cost functions, etc defined?
- Be able to explain the experimental setup and differences between simulation and real world
- Be able to list/explain the baseline methods
- Be able to explain Figure 8 of the paper

Finally, propose 1-2 topics for lectures on background methods for this paper.