# Week 2: Introducing your project --> STAR practice

**[1]** I am a member of Optibot, developing an AI-driven system that automatically selects the best modular pieces to build the most efficient robot arm for specific tasks in dynamic environments like earthquake rescue where a single rigid design is insufficient. [Use 17-18s on average]

**[2]** The question "**#7 Share an experience from your capstone that highlights the importance of engineering ethics.**" I do not plan to answer.

**[3] Stories for questions:**

1. I am a member of Optibot, developing an AI-driven system that automatically selects the best modular pieces to build the most efficient robot arm for specific tasks in dynamic environments like earthquake rescue where a single rigid design is insufficient. My task was to assemble different robot joints together with linkages in simulation and make it an assembled robot arm for optimization. [I need to deliver this by the end of the fall semester and there's just one week left. Holiday is approaching and I felt not that motivated-*add more context for specific questions*] The simulation package I used was timor-python, which provided a limited tutorial for importing customized mesh files. What I did first was to try some simple assemblies that only include two joints. But the assembled result made no sense, the linkage directly penetrated the entire motor. Then I looked into the mesh file the hardware team provided us and realized the key information is to edit it correctly but what was in it is literally out of my knowledge. So I reached out to 2 members of the hardware team, Cheney and Chris, and I organized a quick in-person meeting with them and asked them to show me how each joint works and how they got assembled in their 3D designs. As a result, I quickly get the point and refine my code and get it assembled in just one day.
   **Questions may connect to this anecdote**: #4(Unexpected problem), #6(Leadership to work with teammates), #8(Incomplete information), #9(Meet project deliverables), #10(Learn something quickly), #12(Simple solution to challenging problem)

2. I am a member of Optibot, developing an AI-driven system that automatically selects the best modular pieces to build the most efficient robot arm for specific tasks in dynamic environments like earthquake rescue where a single rigid design is insufficient. My task was to create a cubic environment with randomly generated

obstacles in simulation. After proposing my idea of the solution, one of my team members suggested an alternative approach, claiming a better understanding of the problem. He wanted me to implement the algorithm based on that. While I did not completely get his point, what I did was openly proposing that we both implement the ideas and setting a strict deadline like one week. By that time, we showed our solution and result, then discussed which would be better. He agreed on that. As a result, we both did it and I realized that his algorithm was more efficient but not that intuitive. I engaged in a deeper discussion with him, exchanging ideas to refine the approach. This collaboration led to an improved final solution that combined efficiency with clarity.

**Questions may connect to this anecdote**: #1(Manage conflict), #2(Make members feel included), #3(Constructive feedback), #5(Diversity translates to better solution), #11(Take calculated risk)

**[4] Link to a recording of one question using STAR**: **STAR.m4a**