

About 'Space Settlement Design Competition' Experiences

What:

Designed a space settlement depending on the requirements under time constraints, including the design of the structure, waste management, costs, and construction timeline.

I led my school team of 20 as the Vice-CEO in Woodstock School (my old school). After qualifying for the national round, where we were teamed with 2 other schools, I was elected the Vice President of Engineering and led a group of 60 to the runners up position. At Brighton College (my new school), I started the same club, and was elected President in the regional round to lead a team of 30 students from 3 schools.

Why:

It's a dream come true! My long-term goal is to be an entrepreneur-engineer advancing space research, and here, I got a chance to combine my leadership, management, and engineering skills to design a space settlement.

How:

Weekly meetings as a team, where we update each other on the work done on the project we are working on by each member, what work we might need from one another, plan our next steps depending on the deadline (when we need to present our settlement design to a school teacher who is an expert in this field for feedback), and get going!

On the days of the competitions, which are 1-2 days long on the weekends, we work together for the whole day on designing the settlement to present it.

What skills I learnt/developed:

Collaboration- When understanding how the roles of different departments, like Human Factors and Structure, fit together to produce the final product. So, I created roles for specific people in each department to be responsible for passing on any changes/updates to other relevant departments.

Creativity- When designing designs of different machines that would be cost-effective and useful for the people at the settlement.

Critical thinking- When critiquing the final product to think of ways to improve it.

Conflict Resolution- When facing internal conflicts, protests against the Heads of Departments, and deletion of other team member's work. So, I held a company-wide meeting to emphasize the common goal of winning the competition by the presentation we give in 6 hours, and department meetings to delegate work effectively based on the skills of each team member.

Reflection- When going through feedback to improve our design in the next competition round.

Importance of different perspectives- When brainstorming creative structures other than torri (used by most teams in my experience) for space settlements.

3D modelling skills- When producing a model of our structure and of internal buildings to provide a clear picture of our settlement and its interior to the judges.

Developed knowledge about space systems!

What I plan to do next:

Learning from the past experiences, participate in 2024's competition as well.

From the club I lead, organize a small competition within school too, starting a new tradition in my school to develop student interest in STEM and space research. Do something similar through the schools I work at through Utopia, my NPO.