

Lightning Talk 7: Ethics and Professional Responsibility



Sddec24-01

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Project Overview:

- Create a project with a balloon that flies high up to collect data and record videos from near space.
- Work together with H.A.B.E.T. and other groups.
- Our aim is to get clear videos from up to 30,000 meters using software defined radios.
- We need to keep an eye on power use and how heavy the payload is.



IDEALS Team is Performing Well on:

- Work Competence
 - **Relevance to Project:** Work Competence directly influences the quality, integrity, and timeliness of our project deliverables, essential for client satisfaction and success.
 - **Team's Approach:**
 - **Quality Assurance Processes:** Ensuring work meets predefined standards.
 - **Training and Skill Development:** Continuous improvement to maintain professional competence.
 - **Transparent Communication:** Open channels for addressing issues promptly, maintaining integrity.
 - **Ethical and Professional Responsibilities:**
 - **Integrity:** Upholding honesty and transparency in all actions.
 - **Timeliness:** Respecting deadlines and stakeholders' time.
 - **Professional Competence:** Striving for excellence, meeting client expectations.

IDEALS Team is Performing Poorly on:

- Financial Responsibility
 - **Relevance to Project:** Financial Responsibility is essential for cost-effectiveness and value delivery in our project.
 - **Team's Approach:**
 - **Continuous Testing:** Requires frequent purchases for testing tools and resources.
 - **Limited Cost Analysis:** Expenses may not be thoroughly analyzed, leading to potential overspending.
 - **Lack of Budget Control:** Absence of strict budget control measures.
 - **Changes to Approach:**
 - **Cost-Benefit Analysis:** Conduct thorough analysis before acquiring new tools.
 - **Resource Optimization:** Optimize resource usage to minimize costs.
 - **Budget Allocation:** Establish clear budget control mechanisms.

Potential Ethical Issues:

- Privacy implications:
 - Concerns about capturing images of private property or individuals without consent during balloon flights.
- Transparency and ethical guidelines:
 - Ensuring transparency and adhering to ethical guidelines regarding data collection and privacy protection.
- Environmental impact:
 - Considering the impact of balloon launches on local ecosystems and taking measures to minimize negative effects.
- Broader ethical questions:
 - Addressing concerns related to the purpose and implications of high-altitude exploration, including potential militarization of space and unintended consequences of technological advancement.
- Ongoing dialogue and ethical reflection:
 - Engaging in continuous discussion and reflection to ensure alignment with ethical principles and responsible scientific inquiry.

Conclusion:

- Strong in Professional Responsibility:
 - Consistent adherence to ethical guidelines in data collection and privacy protection.
 - Effective communication and accountability within the team.
- Area for Improvement in Ethical Considerations:
 - Need to better address potential environmental impacts of the project.
 - Enhance awareness of broader ethical implications of high-altitude exploration.
- Uncertain Ethical Issues:
 - Privacy concerns with imagery capture during balloon flights.
 - Environmental impact of balloon launches.
 - Broader ethical questions regarding space militarization and unintended consequences of technology.

