



Challenge Week – 3

Problem Statement: Plastic-Free Campus

Plastic pollution poses a substantial environmental challenge within college campuses, arising from the fragmentation of plastic materials into smaller particles through deliberate or accidental processes. This phenomenon introduces ecological concerns across diverse ecosystems within the campus. This challenge calls for a comprehensive examination of the sources, dispersion patterns, and potential ecological ramifications of plastic pollution in different campus ecosystems. Subsequently, the goal is to propose an integrated strategy that encompasses education, efficient waste management, and sustainable practices to effectively counter plastic pollution, ensuring the preservation of local environments and biodiversity.

Set of Rules:

Problem Understanding: The prototype must target the identification, collection, and management of tiny plastic pieces scattered across college campuses.

Environmental Safety: The solution should prioritize minimizing environmental impact and avoiding harm to ecosystems.

Versatility: The proposed prototype should be adaptable to various campus environments and scales, accommodating different campus layouts and sizes.

Efficient Collection: The prototype needs to showcase its capability to effectively gather plastic particles spanning a broad spectrum of sizes, encompassing plastics through to larger fragments.

Campus Engagement: The given solution should incorporate mechanisms to encourage campus community participation and awareness in plastic waste reduction efforts.

Scalability: The designed prototype should have the potential to be scaled up for larger campus areas if proven successful on a smaller scale.

Technology Suitability: The choice of technology for plastic collection and management should be feasible in terms of implementation and maintenance.

Cost-Effectiveness: The prototype solution must strive for cost-effective implementation to ensure its viability for adoption across different campuses.



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Data Tracking: The prototype should include mechanisms to track and analyze data related to plastic collection efficiency, types of plastic collected, and campus engagement.

Safety Measures: Safety features and protocols should be integrated into the defined solution to prevent any harm to individuals interacting with or maintaining the system.

Integration with Existing Infrastructure: The prototype should be designed to seamlessly integrate with its existing campus infrastructure and waste management systems wherever possible.

Winner Selection: The winner of this challenge would be the one who develops the most original, feasible, impactful, sustainable, and cost-effective solution to the problem. The judges would also consider the clarity and conciseness of the presentation, and the ability to answer questions.

Get creative and make a difference. Good luck, can't wait to see your submission!