1. **Project Name:** Greening the Garage: Oil Filter Crusher
2. **Total Funding Requested:** $4,455.00
3. **Project Lead Full Name:** Daphne Hulse
4. **Project Abstract (under 100 words)**: The Facilities & Services (F&S) Transportation & Automotive Services (TAS) department manages fleet services for the entirety of campus including maintenance and repair at the garage, vehicle rental at the carpool, and oversight of all vehicle purchases. Metal oil filters are regularly used at the garage to remove solid contaminants such as dirt, debris, and metal fragments from a vehicle’s oil. Approximately 1500 oil filters are used per year. Currently, the oil filters are punctured and drained for 24 hours before disposal via landfill. A crusher will remove up to 95% of the residual oil, allowing the filter to be recycled via a metal recycler in Urbana and the residual oil to be reused.
5. **Project Category:** Food & Waste
6. **Project Lead Full Name:** Daphne Hulse
7. **Project Lead RSO/Department:** Facilities & Services
8. **Project Lead University Email Address:** [dlhulse2@illinois.edu](mailto:dlhulse2@illinois.edu)
9. **Do you have a faculty/staff advisor?** No
10. **Additional Member:** Shawn Patterson
11. **Additional Member RSO/Department:** Facilities & Services
12. **Additional Member University Email Address:** [spttrsn@illinois.edu](mailto:spttrsn@illinois.edu)
13. **Do you have any other members?** No
14. **Budget and timeline excel sheet.**
15. **Are you aware that SSC requires projects to attend one working group meeting?** Yes
16. **Is this project student led?** No
17. **If applicable, have you received approval from F&S?** Yes
18. **Do you have a plan for ongoing funding beyond SSC?** No
19. **Beyond SSC, do you have sources contributing to funding or support (ex. staff time, external grants, etc.) to this project?** Yes
20. **Have you applied for SSC funding previously?** Yes
21. **Project timeline (SSC funding agreements remain active for two years.** **List your project’s timeline and/or milestones)**
    1. Procuring and installing the oil crusher at the Garage: 3 months (January-March 2024)
22. **Project Description (250 words or less. What do you hope to accomplish?)** F&S’ TAS department manages fleet services for the entirety of campus including maintenance and repair at the garage, vehicle rental at the carpool, and oversight of all vehicle purchases. The university fleet of roughly 1200 vehicles is the life force behind critical operations on and off of the Urbana campus: the carpool fleet of more than 200 vehicles provides full-service car rental for university employees, and the remainder of the vehicles support the daily work of the F&S trades (e.g. laborers, electricians, plumbers) and auxiliaries (e.g. Housing, Dining, Athletics). Oil filters are regularly used at the garage to remove solid contaminants such as dirt, debris, and metal fragments from a vehicle’s engine, transmission, lubricating, and/or hydraulic oils. Approximately 1500 filters are used per year. The Environmental Protection Agency regulates the disposal of oil filters. Currently, the oil filters are punctured and drained for 24 hours before disposal via landfill in Clinton, Illinois. A crusher will remove up to 95% of the residual oil, allowing the filter to be recycled via a metal recycler in Urbana (Mervis) and the residual oil to be reused. The crusher would be a step forward in creating a less wasteful garage – through the crusher, no more filters would be disposed of in the landfill.
23. **Environmental Impact (In 200 words or less. How does your project increase environmental stewardship at UIUC? What is the waste savings?)**

Currently, oil filters cannot be recycled because of the residual oil leftover after the puncturing and draining process. Approximately 1500 filters are used per year and these are disposed of via the landfill. The hydraulic crusher would facilitate the process becoming zero waste: the crusher would remove up to 95% of the residual oil, allowing the filter to be recycled via a metal recycler in Urbana (Mervis) and the residual oil to be reused at the garage. Facilities & Services aims to not only promote sustainability on campus, but also through its own operations and processes behind the scenes. The act of repairing and maintaining university vehicles would become a more sustainable process with the addition of an oil filter crusher.

1. **iCAP Objective Correspondence (200 words or less. Does your project aim to advance one or more of the iCAP objectives? If so, how?)** The purchase and implementation of an oil filter crusher into the garage directly impacts iCAP Objective 5.2, “Reduce the total campus waste going to landfills from 5,049 tons in FY19 to 4,544 tons or less in FY24, which is a decrease of at least 10%.” Oil filters are made of metal and contribute to this total landfilled waste each year. Completely eliminating the stream of oil filters going to the landfill, and diverting them to metal recycling, is a way that the garage can contribute to this iCAP objective.
2. **Student Impact (200 words or less. How will this project benefit students? How will students be involved? What educational components are in your project?)** The garage supports U of I student employment throughout the year: six students currently work at the garage part-time during the academic year and are offered temporary full-time positions during the summer. The garage has been a consistent participant in the Chancellor’s [Summer Youth Program](https://diversity.illinois.edu/academic-inclusion-programs/summer-youth-programs/), and has hired two youth apprentices each summer since its inception. This program empowers youth interested in gaining experience the skilled trades to participate in a summer program over a seven-week period. The garage also regularly engages with Parkland College, offering internships to interested students. Implementation of an oil crusher into the operations of the garage is a way to engage and educate the existing student employees on sustainable practices within the automotive industry, and it is a skill they can take beyond the university upon graduation. Additionally, the garage regularly offers tours to interested parties – acknowledging efforts toward sustainability during the tours is another way to engage an automotive-oriented audience on sustainable practices.