# *Thank you for your commitment to green initiatives at the University of Illinois. One of the ongoing requirements listed in the terms of the funding agreement for your project is the submission of semesterly reports with key information about your project. In addition to this form, please provide additional financial documentation and/or progress photos if available.*

# *Please be as accurate as possible in describing the project (including possible setbacks or challenges in meeting the initial goals of the project). Not fully meeting your project's goals will not disqualify you from making future funding requests as long as your reports are as complete and accurate as possible. If you have any questions, please contact the Student Sustainability Committee, at* [*sustainability-committee@illinois.edu*](mailto:sustainability-committee@illinois.edu)*.*

**Project Name:** Filify 3D

**Date of Report Submission:** 5/10/2018

**Project Purpose:**

This project aims to reduce plastic waste on campus by collecting and recycling 3D printer waste back into 3D printer filament. We hope to make a sustainable business out of the project that’ll provide a source of income for community members or students in need.

**Detailed Accounting of Expenditures to Date:**

Attached in email.

**Project Progress to Date:**

Currently, we have all the machinery required to produce our filament and test it. This machinery includes an industrial shredder, an extruder, a spooler, and a 3D printer. The last three items listed are owned by the Mechanical Engineering Department and are being lent to us as well as our current facilities. We have produced recycled PLA filament and begun testing in small scale. Results were very positive. We have set up recycling bins at all the major PLA-using 3D printing facilities on campus including the Mechanical Engineering Lab’s Innovation Studio, MakerLab, Talbot’s student projects lab, and the Tech Hub in the Armory. We have also had discussions with the Fab Lab and the Art and Design Building which currently use ABS filament; we may begin recycling this material as well. We’ve collected over 70 kilograms of plastic and are waiting for one last technical issue to be resolved before shredding it all and turning it into filament. While our equipment manufacturer, Filabot, has been looking into this issue, we’ve begun testing PET filament extrusion and have developed a water cooling rig to more effectively cool our extrusion line. On the business side of things, we have spent the last semester developing a growth strategy for future semesters. This growth plan involves strategies for where to sell our product, how to price it, goals for sales, and more. Next semester, we look forward to turning our collected plastic into filament and beginning trials and sales.

**Student Involvement and Outreach to Date:**

This project has directly involved 12 students thus far. Roughly 10 other students, mostly employees at the MEL’s Innovation Studio, have also been indirectly involved. Next semester we will likely look further into outreach programs to raise awareness about recycling and involve more students and community members.

**Marketing and Promotion Efforts to Date:**

So far, much of our promotion has been through meetings with the printing facilities on campus (we’ve met with 7 of them). The recycling bins we’ve set up include labels with our name and logo on them as well as SCC’s.

**Additional Comments:**

Things are looking promising. Please see the attached photos to get further insight into our project’s progress.