*Please submit this completed application and any relevant supporting documentation by the deadline listed on the SSC website to* [*Sustainability-Committee@Illinois.edu*](mailto:Sustainability-Committee@Illinois.edu)*.The Working Group Chairs will be in contact with you regarding any questions about the application. If you have any questions about the application process, please contact the SSC at* [*Sustainability-Committee@Illinois.edu*](mailto:Sustainability-Committee@Illinois.edu)*.*

# General Information

**Project Name:** Illini Gadget Garage: On-campus Operations and Outreach

**Total Amount Requested from SSC:** $38,000

**Project Topic Area(s):** Energy Education Food & Waste

Land Water Transportation

# Contact Information

Applicant Name: Joy Scrogum

Unit/Department: Illinois Sustainable Technology Center (ISTC)

Email Address: jscrogum@illinois.edu

Phone Number: 217-333-8948

**Project Team**

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| --- | --- | --- |
| **Name** | **Department** | **Email** |
| Madeleine Elaine Wolske (nee Hall) | ISTC | mehall3@illinois.edu |
| Amanda Elzbieciak | ISTC | elzbiec2@illinois.edu |
| Name | Department/Organization | Email Address |
| Name | Department/Organization | Email Address |

# Project Information

Please provide a brief background of the project, the goals, and the desired outcomes:

According to the US EPA in 2014 41.7% of "selected consumer electronics" were recycled (<https://www.epa.gov/sites/production/files/2016-11/documents/2014_smmfactsheet_508.pdf>). That means approximately 60% of electronics are NOT recycled. As pointed out by iFixit on its consumer education site (<https://ifixit.org/ewaste>), 1.6 billion cell phones were manufactured in 2012, while the average American keeps their cell phone for only 18 months. Even for devices that do get recycled, approximately 30% of electronic material cannot be recovered. So clearly, e-waste is a growing national and global problem, and even though improvements continue to be made in collecting devices for recycling, recycling isn't enough to stem the growing tide of e-waste. It's important to also educate consumers about the potential environmental and social impacts of electronics production, use, and end-of-life management, while encouraging them to keep their devices in service for as long as possible, and thus make the most of the natural and human resources (in the form of labor) already invested in the manufacture of those devices.

The Illini Gadget Garage (IGG) project was established with funding from SSC to address the e-waste issue, encourage discussion of impacts of electronics throughout their product life cycles, educate about local recycling options, and foster a shift in our campus community mindset from a "throwaway society" to more a "repair and reuse" culture. The IGG provides “collaborative repair” services—that is, we don’t let people drop off an item for repair by someone else so they can pick it up later. We instead have the device owner sit down with staff or volunteers to perform “do-it-together” repair with guidance so they are learning how to use tools and how their device works themselves. The project has made great progress by establishing an ADA compliant on-site workshop and conducting regular pop-up clinics at other campus locations (e.g. the Undergraduate Library Media Commons). To date, we've helped divert 323.41 lbs. of devices from the waste stream, as well as 78 lbs. of batteries (<http://wp.istc.illinois.edu/ilgadgetgarage/about/our-impact/>). We are securing sponsorships to allow us to continue having regular open hours at the campus workshop this fall, as well as seeking donations to host free-to-the-public repair clinics and educational events, like our recent screening of the documentary *Death by Design* at the Champaign Public Library (see <http://wp.istc.illinois.edu/ilgadgetgarage/2017/07/25/death-by-design-screening-august-22-at-champaign-public-library/>). We are also marketing off-campus employee engagement events for a fee, which would involve our staff members going to a business or organization's facility to conduct a half-day pop-up repair clinic for employees, not only assisting those employees with troubleshooting and minor repairs for electronics and small appliances with electronic components, but also discussing issues that underscore the important of extending the useful life of products (e.g. embodied energy and other resources, issues with materials sourcing and labor conditions in component factories, as well as the difficulties associated with reclamation of materials from electronics during recycling).

The IGG is coordinated by the Illinois Sustainable Technology Center (ISTC) as part of the zero waste efforts of its technical assistance program (TAP) and the project is led by ISTC TAP staff member Joy Scrogum. Because the TAP works with clients throughout the state, there are always demands upon staff time to work on client projects beyond the UI campus. To help ensure ISTC’s continued coordination of our on-campus workshop and pop-up clinics, we are seeking additional funding from SSC for the following purposes:

* **To cover salaries for hourly employees to ensure on-campus IGG services for 20 hrs/week throughout the Spring 2018 (Jan.-May) and for 8 weeks during the summer (June and July).** This would include a combination of open hours/appointments at our workshop at 1833 S. Oak Street and on-campus pop-up repair clinics in various locations in public spaces, reserved meeting rooms, etc. The combination would include a minimum of one pop-up clinic per week and depending upon demand, our on-campus operations might become almost exclusively via pop-up clinics, with appointments at the workshop as needed for the use of tools that cannot easily be used at pop-up locations (e.g. soldering equipment) and repairs that require extensive one-on-one time with repair guides (beyond what could be accomplished during a pop-up session).
* **To cover a portion of project coordinator Joy Scrogum’s salary for this same time period** for the purposes of hourly employee and volunteer supervision, educational programming and material development (e.g. a screening of the documentary *Death by Design* with discussion on-campus during Earth Month, web site content and blog posts on electronics sustainability, repair, and recycling issues of interest to UI students, staff, and faculty, coordination of student participation in the iFixit Technical Writing Project via the IGG, etc.). This will ensure that some of Ms. Scrogum’s time can be devoted to this project in addition to work for other TAP clients and projects.
* **To provide for marketing materials (e.g. flyers, postcards or ads), general supplies and room rental fees for pop-ups and other programming outside the IGG workshop.** We have previously sought to operate pop-up clinics in on-campus spaces available to us for free, but we will begin seeking spaces in high traffic areas that may require room rental fees (e.g. rooms at the Illini Union, meeting rooms at Grainger Engineering Library, the University YMCA, etc.). This will help increase awareness of the project, ensure that students with full class schedules have opportunities to interact with us between classes without the need for extensive travel time, and will help bring our services to more segments of the campus community. We’ll also need to rent a relatively central location for the screening of *Death by Design*.

Space related expenses (e.g. utilities or repairs) for our Oak Street workshop and salaries for hours spent on off-campus events and programming will be provided by donations made to the Sustainable Electronics Initiative (SEI) Support Fund, a gift fund through the UI Foundation administered by ISTC, and through other ISTC accounts associated with off-campus services.

Please provide a brief summary of how students will be involved in the project:

Students will primarily be involved as recipients of IGG services, receiving free troubleshooting and repair assistance for their personally-owned electronics and small appliances with electronic components. The IGG does not endorse businesses, but we do provide guidance for students, staff, and faculty whenever they may need to purchase a replacement part (e.g. help them determine model of cell phone screen to purchase if they need to replace a cracked screen), or seek extensive repairs (or if they prefer a drop-off repair service; we can help them search for local repair options). We also help educate the UI community about local electronics recycling and donation options for situations in which devices are functional but no longer wanted, or genuinely beyond repair. We have previously worked with UI Housing, for example, to provide posters for residence halls during move-out to help inform students of donation and recycling options.

Students may also become involved as volunteers in a variety of aspects of the program. Student volunteers may receive training from IGG staff on how to assist patrons with repairs, or provide support to staff during repairs. They may also assist with social media and other marketing activities (e.g. creation of flyers or signage) or with creation of educational material (e.g. creation of podcast scripts, blog posts, informational videos, etc.). In this way, students from a variety of academic disciplines can bring their own skill set to the project. Our identifying mark was even developed by a student group in an industrial design class taught by Professor William Bullock which interacted with the IGG (see “UI Student Involvement” at <http://wp.istc.illinois.edu/ilgadgetgarage/about/our-impact/>). We are always open to working with professors to provide interesting class projects, service learning exercises, or presentations for UI courses.

Student volunteers also have the opportunity to work on the iFixit Technical Writing Project (<http://wp.istc.illinois.edu/ilgadgetgarage/ifixit-student-guides/>), creating online repair resources which will be made available on the iFixit web site to people around the world. Volunteers work on this project with IGG staff supervision and guidance, using tools and photography equipment available at the IGG workshop. This unique experiential learning opportunity not only teaches technical writing skills but also creates an online resource to which students may point on their resumes.

Note that both of our current hourly employees began working on this project as student hourlies (one actually started as a student volunteer, then became a student hourly). They have since graduated and remain on-board as academic hourly employees, valued due to their experience with the project and with guiding the public through collaborative repair of electronics. However, since they continue to seek FT positions elsewhere, it is possible and likely that we will have an opening for an hourly employee at some point. In that situation, it will also be possible for a student to become involved as a paid staff member for the IGG. We would consider not only graduate hourly employees for such a position, but also reliable undergraduates, particularly those that qualify for federal work study assistance.

Finally, students will benefit from a free on-campus screening of the documentary *Death by Design* druing Earth Month, so they can learn about the impacts of electronics on human and environmental health. An after-film discussion will be led by Joy Scrogum. ISTC has a copy of the film and public performance rights.

Please provide a brief summary of the project timeline:

The following represents a tentative timeline for activities supported by requested funds. It should be noted that at least one pop-up clinic will be held each week, though more may occur depending on demand and space availability. The precise timing and locations of pop-ups will depend on space availability.

**January 2018:** Open IGG workshop. Begin recruiting student volunteers for spring semester, marketing, and outreach to professors, Living-Learning Communities, relevant RSOs, etc.

**February – May 2018:** Maintain 20 hours/week of on-campus services including pop-up repair clinics at various locations (locations and times TBD) and open hours and/or appointments at our Oak St. workshop as needed. Work with student volunteers on a variety of activities, including the iFixit Technical Writing Project.

**April 2018:** As part of campus Earth Month festivities, host a free screening of *Death by Design* with associated discussion, at a relatively central campus location (e.g. Illini Union, Knight Auditorium of Spurlock Museum, or similar location).

**June-July 2018:** Maintain 20 hrs/week of on-campus services. Consider seasonally appropriate pop-up locations, such as the Sustainable Student Farm stand (we collaborated with them last summer to have a weekly presence on the Quad).

**August 1, 2018:** IGG workshop will close for planning, preparation and marketing for Fall semester. On-campus pop-up clinics will be suspended. Workshop open hours and pop-up clinics will resume after the beginning of the Fall semester pending additional funding and continued demand for services.

Additional comments

ISTC continues to seek additional funding for on-campus aspects of the project through individual and corporate donations and applying for other grants. Although we currently do not charge fees to encourage all members of our community to participate in product repair rather than replacement, as well as to underscore that we are not a typical repair business but instead an educational service, we reserve the option to charge fees at a future time to keep the project going. If fees are deemed necessary, we will first consider small service fees for non-UI community members (i.e. those who are not students, faculty, or staff), and then perhaps for faculty and staff. We want to keep services free for students for as long as possible, and by seeking funding from SSC for on-campus operations, we hope to provide a valuable sustainability service to students for which they are already paying via their self-imposed sustainability fee.