

Progress Report - Campus Sustainability Fund

Thank you for submitting a Progress Report for your Campus Sustainability Fund grant! We look forward to hearing about the advancements of your project.

Progress Reports are due the first week of every March, May, August, and December for the duration of the project. This link will open at the start of the week. Progress Report due dates for 2022: May 6th at 5PM and August 5th at 5PM.

Please be aware of the responses minimums and maximums for each question. While this form does not enforce our minimums, we strongly encourage following them. Should we feel that not sufficient information is provided, the Committee might request a new submission.

Should your project not yet have progress to report in some areas, you may type "No progress to report." However, this will be vetted by Committee Members. If you have no progress to report, that should be made evident in meetings with the Committee Member who is your direct contact.

Should your project already be completed, please note in your responses to "Next Steps" and "Progress Support" that neither questions are applicable considering your project's timeline.

Uploading photos is required for Progress Reports - if you have no photos to share because your project has not yet begun, please omit.

Email *

chrislim@arizona.edu

Project Manager Name *

Who is submitting this Progress Report?

Chris Lim

Project Name *

The University of Arizona Air Pollution Sensor Network

Project Subaccount Number *

22.04

Project Summary Snapshot *

Please copy and paste the "Summary Snapshot" you provided in your project application. Responses are limited to 800 characters (~60-100 words).

Low-cost air pollution sensors will be installed across the UA campus. The collected data will be used to create machine learning-based models to predict and visualize real-time air pollution levels across the entire campus. The data and visualizations will be shared online so that community members can see and better understand air quality patterns and their personal exposures.

Requested Metrics *

Please add the metrics we've requested you track here.

15 PurpleAirs calibrated with Pima DEQ. 0 sensors installed. 7 Portable AirBeams being used for mobile sampling. 2 students helped with planning/implementation. 6 students helped with sampling.

Project Accomplishments *

Please describe what aspects of the project have been accomplished. Be as descriptive and specific as possible. Responses must be 500 characters at minimum and no longer than 2,000 characters, spaces included.

Examples of accomplishments could include: Held 4 public meetings totaling 130 attendees; Transitioned 300 square feet of dirt into usable garden space and signed on 14 community garden volunteers. Other examples of accomplishments could include sharing a confirmed schedule of events, the connections/contacts that have been established, or providing an update on an FM quote.

We had 2 meetings with FM (Patrick Beamish) and many correspondences. We expanded and confirmed potential sensor locations across campus.

We organized and conducted a mobile sampling campaign with 7 students recruited, mostly completed this week. During a 5-day period, they carried around mobile sensors (AirBeam) during their typical daily routine. So far, 4 students completed all 5 days, while 2 are still ongoing; 1 has stopped. The students wore the sensor during their typical daily routine (most of them mentioned they spend more time indoor (class or lab) than they do outdoor.

Example session: <https://bit.ly/3P0aXiO>

We also observed that on the training/testing day, which was mostly in the participant's house, the PM2.5 levels were significantly higher than most of the actual mobile sampling.

Additionally, 4 students completed a brief activity log, showing how much time they spent indoor versus outdoor. We will be analyzing this data in the upcoming weeks.

Next Steps *

Please detail the next steps for your project, numbering each step. (ie, 1. Connect with X Department to collaborate on the event, 2. Contact the catering options to confirm pricing, 3. Interview candidates for internship). If your project is completed, you can note "Project is Completed." Responses must be 500 characters at minimum and no longer than 2,000 characters, spaces included.

1. Obtain final estimates/quotes from FM (1-2 weeks from now); install sensors (FM estimates 1-2 week to complete installation after quote)
2. Analyze data collected last week from mobile monitoring
3. Develop/extend data interactive portal
4. We will continue sensor calibration at PDEQ sites for newly obtained sensors.

Challenges Faced *

Please identify and describe any obstacles/roadblocks you or your team have experienced, and detail how you've managed them/ will manage them. Should your project already be completed, please note what challenges you faced and what you would do differently. Responses must be 500 characters at minimum and no longer than 2,000 characters, spaces included.

We are now moving along well.

Project Support *

Can the CSF support you in addressing any roadblocks you've encountered? How else can the CSF support your project? Responses must be 500 characters at minimum and no longer than 2,000 characters, spaces included.

Once we have sensors installed and a dashboard prototype ready, we will need help with spreading the word about the project. Help with dissemination over social media and/or connecting with university officials would be needed.

Photos

Please upload or provide link (below) to relevant photos. Providing photos to your project is required. Please include event photos, any and all relevant photos, as well as flyers or advertisements.

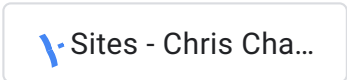


Photo Link

Please copy hyperlinks to photos here should you not be able to individually upload photos. Please include event photos, any and all relevant photos, as well as flyers or advertisements.

The above photo shows site locations with additional locations after discussion with FM.

Media/Links

Please include links to any media coverage or events information (e.g. news, social media, websites, interviews, etc.)

N/A

This form was created inside of University of Arizona.

Google Forms