**Preliminary Demonstration Proposal**

In the Milestone Round, all teams must submit a Preliminary Demonstration Proposal.

The Preliminary Demonstration Proposal must be a single PDF document. This proposal is for informational purposes only and will not be judged.

Teams will have an opportunity to update this Preliminary Demonstration Proposal if they are invited to compete in the Final Round. A template and deadline for updating this Preliminary Demonstration Proposal will be provided to teams invited to compete in the Final Round.

Please address the following questions about your Prototype Solution:

* What specific hardware systems, subsystems, and components do you intend to demonstrate in the Final Round?
* What is the approximate mass (kg) and volume (cm3) of the hardware that you intend to demonstrate in the Final Round?
* Please describe the internal and external interfaces of the hardware that you intend to demonstrate in the Final Round.
* What is the concept of operations for the demonstration, including how long (minutes or hours) it will take to demonstrate one cycle that recycles one batch of eligible trash items?
* Which eligible trash item(s) do you intend to recycle at the demonstration?
* How many batches do you expect to use for the demonstration? Teams may use up to three (3) batches, and all batches must be identical.
* If you are planning to recycle multiple eligible trash items, what is the expected mass (kg) of each eligible trash item in your batch? Please be sure that your batch meets the Minimum Batch Requirements described in the challenge rules.
* Do you intend to build and demonstrate any pre-processing, or do you intend to use an alternative method at the demonstration site to address pre-processing? If you intend to use an alternative method at the demonstration site to address pre-processing, please describe that method.
* How will you capture and handle outputs (usable outputs and unusable outputs) at the end of the recycling process?
* Will you require any unique resources to conduct the demonstration?
* Will your demonstration result in any potentially hazardous materials? Do you have any safety concerns related to the demonstration that should be mitigated prior to the demonstration?
* How many team members do you plan to bring to the demonstration? Teams demonstrating only a Prototype Solution may bring up to four (4) team members. Teams demonstrating both a Prototype Solution and a Digital Twin Solution may bring up to six (6) team members.

For teams that are also developing a Digital Twin Solution, please address the following questions:

* Which two off-nominal scenarios does the team intend to demonstrate?
* Will the team require any unique resources to conduct the demonstration?
* How many team members will present and demonstrate the Digital Twin Solution?