

# Sun Powered Plastic Recycling

**OPEN CALL  
FOR IDEAS!**

A research and design  
exploration on low-tech  
solar tools for local  
plastic recycling



Distributed  
Design



Co-funded by the  
European Union



POLITÉCNICO  
DE LISBOA

BY THE END  
OF MAY

# Sun Powered Plastic Recycling

## Open call for ideas

**SUN POWERED PLASTIC RECYCLING** is a research and design project exploring the potential of low-tech solar tools to recycle plastic at a local scale. The exploratory nature of the project, based on the work by [Sun Factory](#), wants to make plastic recycling more accessible and less energy-intensive. The initiative, developed by [Politécnico de Lisboa](#) and [BY THE END OF MAY](#) within the [Distributed Design Platform](#) framework, consists of a design challenge inviting designers, makers and students across Europe to participate by submitting their ideas, concepts and developments through an open call. Up to six short-listed proposals will be presented in a Distributed Design exhibition in Lisbon, Portugal in January 2024, and two winners will have the opportunity to visit designers and makers in another European city.

### Phases

1. An open call for ideas invites designers, makers, engineers and creatives interested in low-tech and low-energy plastic recycling to submit ideas to improve and expand the open source work developed by Sun Factory.
2. Up to six proposals will be selected by Politécnico de Lisboa and showcased in a temporary exhibition in Lisbon, Portugal. The teams of the selected projects will also be promoted on the Distributed Design Platform and have the possibility to further develop their idea with the technical support of Sun Factory and Politécnico de Lisboa.
3. Among the six finalists, two winners will be selected by a jury of international experts and be awarded with a €500 mobility prize to visit a Distributed Design member in another European city and meet designers, makers and creatives from their local network.

### Participation

Participation is open to creative talents working at the intersection of the maker movement and distributed design and embodying the following values: open, collaborative, regenerative and ecosystemic. You can learn more about Distributed Design values [here](#).

### Project proposals

We are looking for ideas, concepts and design solutions aimed at improving or expanding the work on low-tech solar plastic recycling developed by Sun Factory. Documentation and presentation of the current state of the work can be found here:

<http://sun-made.org/>

<https://wikifactory.com/@marcosunfactory/sun-concentrator>

<https://wikifactory.com/@marcosunfactory/manual-injector>

<https://wikifactory.com/@marcosunfactory/injection-cartridge>

Proposals can follow one of the following tracks:

- Improvement of the existing tools, process and general system or Expansion with additional tools, processes or complementing systems;
- New Product/Service designs that make use of Sun Factory's technology, processes, scales and contexts of productions;

Proposals can be submitted in the state of concept (ideation phase) or product (development phase). In addition, proposals have to be open source, easily replicable, and should consider the use of tools and technologies commonly found in fab labs and makerspaces: 3D printers, CNC and laser cut machines, microcontrollers, microprocessors, sensors, etc.

## Selection

The team at Politécnico de Lisboa will assess all the proposals submitted. Six ideas will be selected for the Distributed Design exhibition and for support in eventual further development. The six shortlisted ideas will also have the opportunity to be promoted online on Distributed Design Platform website and social media, and within local design initiatives and presentations. A jury of international experts in design, plastic recycling and digital fabrication will then select two winners for a €500 mobility prize to visit a Distributed Design member in another European city.

Both stages of selection will follow these main criteria:

- The idea's overall ability to improve or expand the work on low-tech solar plastic recycling in a useful or innovative way;
- The technical feasibility of the idea as an open source project that can be replicated by other designers and makers in fab labs and makerspaces, or other fabrication contexts;
- How the idea addresses and promotes the Distributed Design values.

## Project submission

Applications can be submitted until **December 31, 2023** (23h59 UTC/GMT). Proposals must be sent by e-mail to [fabschools@eselx.ipl.pt](mailto:fabschools@eselx.ipl.pt) indicating in the subject line "Distributed Design — Open Call for Ideas — Project title" and must contain:

1. Text document containing: project title, state (concept or product), track (improvement or expansion), project description (max. 1000 characters) and participant details (name, country, e-mail address).
2. Illustration, rendering and/or blueprints in a PDF (max. 5 MB).
3. Between 3 and 5 images (JPG or PNG, max. 2 MB each).

## Key dates

Open call for ideas: October — December 31, 2023

Selection process: January 2-4, 2024

Shortlist announcement: January 5, 2024

Distributed Design exhibition: January 2024

Winners announcement: February 15, 2024

## Intellectual property

The call will only accept works licensed under a Creative Commons Attribution non-commercial 4.0 license, or any less restrictive one. Authors will be invited to confirm it when submitting.

## Contact

Further questions and doubts relative to the Open call for ideas can be addressed to [fabschools@eselx.ipl.pt](mailto:fabschools@eselx.ipl.pt).