

This design-research project engaged community groups, industry, and education providers to develop principles, protocols, and prototypes for the sustainable use of synthetic plastic waste in product design for small volume production. The process involved collaborative design-research and engagement project with prototyping led by the Industrial Design Research Lab (UWA) in collaboration with REmida, funded by a WA Waste Authority grant.

Led by Mark Sawyer, the IDRL team's role involved developing a series of protocols, principles, and prototypes for working with recycled plastic filament which were developed and refined through an iterative prototyping process using a custom designed flat-bed 3D printer and recycled PET plastic.

The results of this investigation were made public at the WA Waste Authority funded, Jellyfish Plastics launch at REmida, Perth, in October 2018 using a multi-modal installation of textual, visual, and three-dimensional information. The panels and prototypes were designed by the IDRL team to explain the outcomes in a format accessible to the general public while still being informative to specialists. The outcomes were also communicated at the international Materials in Design symposium held at UWA on December 3, 2018.

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Project title: "Designing with Recycled Plastic Filament: Processes, Principles, and Prototypes"

Output: Multi-modal installation and public showcase of prototypes at REmida, Perth, for the Jellyfish Plastics launch, October 2018.