



What is Dreamcatcher?

The Dreamcatcher system allows designers to input specific design objectives and be presented with a number of possible designs, along with performance data for each.

How does it work?

The Dreamcatcher system uses generative design and artificial intelligence to simulate complex phenomena to result in a design conforming to user-defined constraints.

Dreamcatcher Workflow



1. Define

The designer inputs problems, specifications, and goals to the machine. These constraints can be of various types and purposes, including function, material type, manufacturing method, performance criteria, safety requirements, and cost restrictions.



2. Generate

The system interprets the requirements and generates a wide spectrum of designs. These designs are put into competition against each other, compared by their ability to meet the designer's constraints. Default requirements also influence comparisons, such as manufacturability and thermal dynamics.



3. Explore

The Dreamcatcher system presents a number of viable design solutions to the designer and supports its decisions with performance data from simulations. The designer selects one of the options, or modify specifications to iteratively generate more relevant solutions.



4. Fabricate

With a design solution selected, the system proceeds to export the product in one of many possible outlets. Designers may have the model 3D-printed, or passed into other software for further performance testing and analysis.

Applications

Automotive	Aerospace	Manufacturing
<ul style="list-style-type: none"> Variety of designs from cars to motorcycles Lighter, more efficient Cost-effective solutions Safety improvements Environmentally friendly 	<ul style="list-style-type: none"> Includes airplanes, drones, and other flying machines Streamlined, aerodynamic Cost-effective solutions Improved fuel-efficiency Environmentally friendly 	<ul style="list-style-type: none"> Endlessly possibilities for part manufacturing Integration with existing 3D-printing systems Design process expedited Shifts designer focus from construction to design criteria