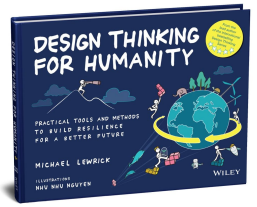
Project:
Team:
Version & Date:

Design for Durability, Repair & Disassembly

Quick guide: This tool sets out three design principles for pushing back against disposability and planned obsolescence: durability, repair, and disassembly for high-quality recycling.

More tips & tricks on book page: 212



Lewrick, M.
Design Thinking for Humanity
ISBN: 9781394366392
www.design-humanity.com

1 Brainstorm & Define Design Principles

Set the core principles.

Durability & Obsolescence Defenses
What structural design choices guarantee extreme product longevity? How do we prevent functional, stylistic, or technological obsolescence?

Repairability & Toolless Disassembly
How easily can components be separated? What local infrastructure networks, open-source documentation, or parts modularity empower user maintenance?

Closed-loop Material Recovery Blueprint
When the asset hits terminal retirement, how are its components harvested? How do we simplify separation into pure technical or biological nutrients?

2 Checklist

Score designs against a checklist.

Design for Durability
Create high-quality products built to last: robust, long-lasting materials and a timeless aesthetic that won't quickly go out of fashion.

- ☐ **Have we selected the most robust and long-lasting materials available for this product's intended use?**
- ☐ **Is the design timeless, or is it based on a short-term trend that will quickly look dated?**

Design for Repair
Make products easy to fix: modular components, standard fasteners instead of proprietary screws or glue, clear instructions, reliable spare parts.

- ☐ **Can the product be opened and reassembled using standard, common tools?**
- ☐ **Are key components modular and easily replaceable if they fail?**

Design for Disassembly
Plan for end-of-life from the start: avoid permanent adhesives, use a limited number of pure mono-materials so components can be separated for high-quality recycling.

- ☐ **Have we avoided permanent glues or welds, favoring screws or clips instead?**
- ☐ **Is the product made from a few, clearly marked mono-materials to make recycling simple and effective?**

3 Repairability Score (1 = poor, 5 = excellent)

Rate the design and identify the improve.

	1				5
Durability	○	○	○	○	○
Repair	○	○	○	○	○
Disassembly	○	○	○	○	○

Get a PDF Premium Design Thinking for Humanity Template:
WWW.DT-TOOLBOOK.COM/SHOP