

SHEPPiD



# Checklist for Sustainable Product Design

Sustainability in product design is not just a trend—it's a responsibility. By incorporating eco-conscious principles into your design process, you can reduce environmental impact, enhance product appeal, and align with consumer values. Here's a checklist to guide your efforts toward responsible innovation:

# SHEPPiD



**1: Material Selection**

**2: Sustainable Manufacturing Methods**

**3: Energy Efficiency During Use**

**4: Shipping and Packaging**

**5: End-of-Life Considerations**

# 1. Material Selection

## Checklist

### **Recyclability**

- Are the materials recyclable or reusable at the end of their life cycle?

### **Renewable Sources**

- Are the materials sourced from renewable or bio-based resources?

### **Durability**

- Can the material withstand prolonged use, reducing the need for frequent replacements?

### **Toxicity**

- Are there harmful chemicals or additives in the material?

### **Suppliers**

- Does the material supplier follow sustainable and ethical practices?

### **Pro Tip**

Opt for materials with certifications to ensure sustainability.



SCS Recycled Content  
Certification



Forest Stewardship Council  
Certification

## 2. Sustainable Manufacturing Methods

### Checklist

#### **Energy Efficiency**

- Does the manufacturing process minimize energy consumption?

#### **Waste Reduction**

- Are there measures to reduce material waste during production?

#### **Local Production**

- Can the product be manufactured locally to reduce transportation emissions?

#### **Ethical Labor**

- Does the production process ensure fair wages and safe working conditions?

#### **Innovation**

- Have you considered advanced techniques like additive manufacturing to minimize waste?

#### **Pro Tip**

Lean manufacturing principles can streamline production, reduce waste, and increase efficiency.

# 3. Energy Efficiency During Use

## Checklist

### Low Energy Consumption

- Does the product consume minimal energy during its lifecycle?

### Renewable Energy Compatibility

- Can the product operate using renewable energy sources?

### Energy Recovery

- Does the product incorporate features to conserve or recover energy?

### Standby Mode

- Have you minimized energy consumption during idle periods?

### Pro Tip

Products with energy efficiency certifications like ENERGY STAR or CE marking not only attract eco-conscious consumers but also demonstrate a company's commitment to responsibility.



Energy Star  
Certification



CE Marketing  
(European Conformity  
marking)  
Certification

# 4. Shipping and Packaging

## Checklist

### **Packaging Materials**

- Are the packaging materials recyclable, compostable, or biodegradable?

### **Minimal Packaging**

- Have you reduced packaging to the minimum necessary to protect the product?

### **Reusable Options**

- Can the consumer reuse the packaging?

### **Local Sourcing**

- Are shipping materials sourced locally to minimize transportation emissions?

### **Carbon Offsets**

- Are you offsetting the carbon footprint of shipping?

### **Pro Tip**

Consider labeling packaging with disposal or recycling instructions to educate consumers.

# 5. End-of-Life Considerations

## Checklist

### **Disassembly**

- Can the product be easily disassembled for repair, recycling, or reuse?

### **Biodegradability**

- Are parts of the product biodegradable?

### **Recycling Programs**

- Have you partnered with recycling organizations to manage disposal?

### **Extended Life**

- Can the product be upgraded or repurposed instead of discarded?

### **Take-Back Policies**

- Do you offer programs for consumers to return the product for responsible disposal?

### **Pro Tip**

Collaborate with third-party recycling or upcycling programs to extend the life of your products and further minimize waste.

# OUR PROJECT CASE STUDY : GNARWALL

## GNARWALL

[gnarwall.co](http://gnarwall.co)

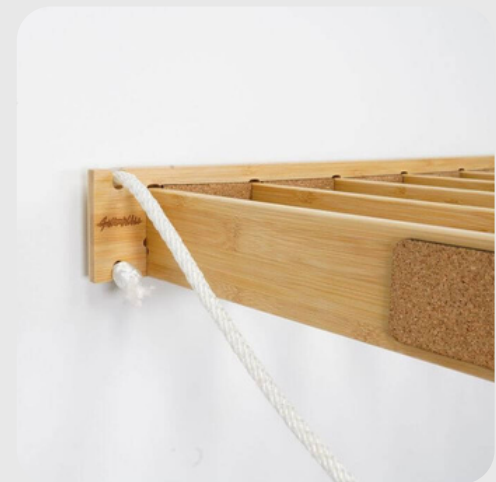
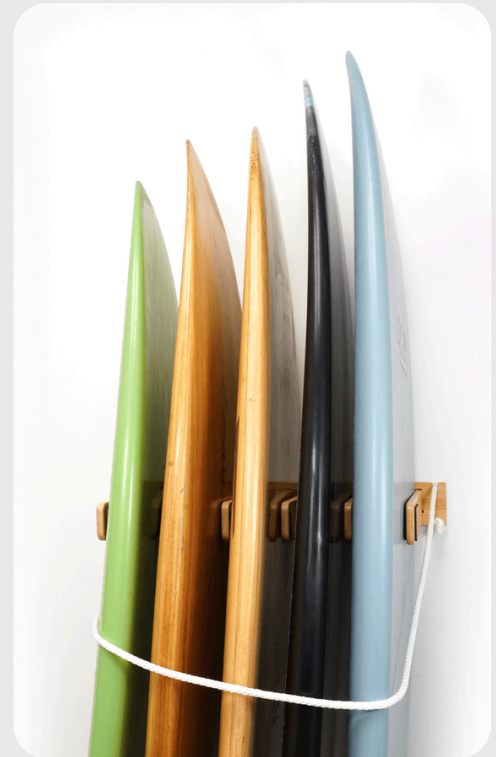
Surfboard Storage Product Brand

For the GNARWALL brand, sustainability is at the core of its design philosophy. By prioritizing eco-friendly materials, minimal packaging, and innovative design, GNARWALL aims to reduce the environmental impact without compromising functionality or aesthetics.

Here's how sustainability is integrated into the product line:

### Single-Material Products

GNARWALL products are often designed with a single material, making them simpler to recycle and reducing the complexity of the production process.





## Redesign for Sustainability

GNARWALL continuously evaluates and improves its product line to replace questionable materials with sustainable alternatives.



Example:

The Vertical Multi Rack originally included foam pads, which were difficult to recycle. These have been replaced with cork pads, a natural and sustainable alternative.

## Minimal and Sustainable Packaging

### Multi-Use Packaging

Many products are shipped in boxes that double as their product packaging, minimizing waste.

### Eco-Friendly Recyclable Materials

Instead of plastic fillers, GNARWALL uses recycled kraft paper to protect products during transit.

### Small Shipments

For smaller items, GNARWALL uses for recyclable envelopes, even though plastic alternatives are cheaper, reflecting the commitment to ecological responsibility.



# OUR PROJECT CASE STUDY

## Redesigning Biotechnology Research Equipment to Achieve ACT Environmental Impact Factor Certification

### Project Overview

In our effort to design innovative and sustainable products for the biotechnology sector, our team embarked on a redesign project to meet the stringent requirements of the ACT Environmental Impact Factor Label.

This certification emphasizes Accountability, Consistency, and Transparency (ACT) in the environmental impact of laboratory products. By achieving ACT certification, we aim to provide lab professionals with more sustainable options while advancing our commitment to environmentally responsible design.

To learn more about the The ACT certification, Please visit [the My Green Lab® website](https://www.mygreenlab.org).



The ACT label