

# Sustainability Design Challenge

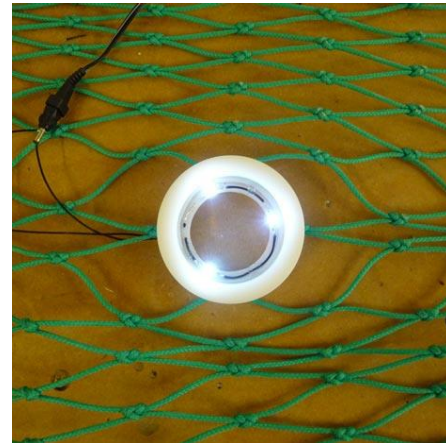


SDG: Sustainable Development Goal  
Source: United Nations Information Centre

# SafetyNet by Dan Watson



Dan Watson has designed a trawling net that filters young and endangered fish from the catch.

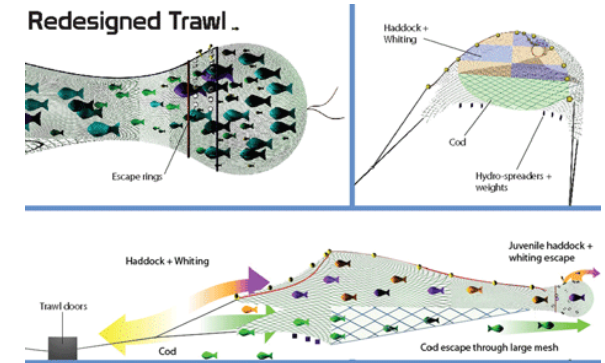


Called SafetyNet, the design uses a combination of strategically placed holes and lighting to separate fish of different ages and species.

The technique exploits behavioral and psychological differences between species of fish.

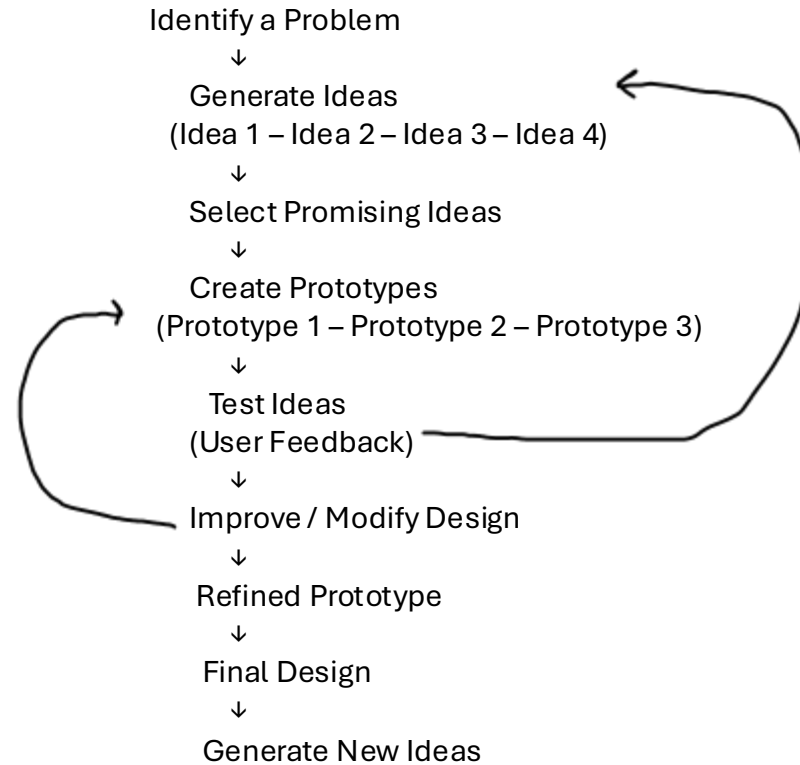


Watson created the net to tackle the huge proportion of unmarketable fish caught and thrown back into the sea dead each year.



Using the SafetyNet system, the fishing industry can become more sustainable. This will give security not only to the 40% of the world's population who rely on fish as their primary food source, but also to the fishermen within the industry itself.

# How Designers Develop Ideas



# 10-minute Quick design warm-up challenge

Think like a designer.  
Identify a real-world problem that design could solve.

## Design Challenge

Choose a **real-world problem** and sketch ideas for a **product, system, or service** that could improve it.

- 1. 2 minutes** - Discuss in groups of 3  
What real-world problems could design improve?
- 2. Write 3 problems**
- 3. 5 minutes** - Sketch as many ideas as possible that could help solve one problem.
- 4. Share**

Design something that improves the environment  
inspired by a **Sustainable Development Goal**

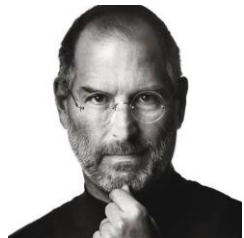
**Problem > Research > Ideas > Prototype > Test > Improve > Share**

# Example prototype



**“I’m convinced that about half of what separates successful entrepreneurs from the non-successful ones is pure perseverance.”**

**“Sometimes when you innovate, you make mistakes. It is best to admit them quickly and get on with improving your other innovations.”**



Steve Jobs

Was an American entrepreneur, industrial designer, and co-founder of Apple Inc.

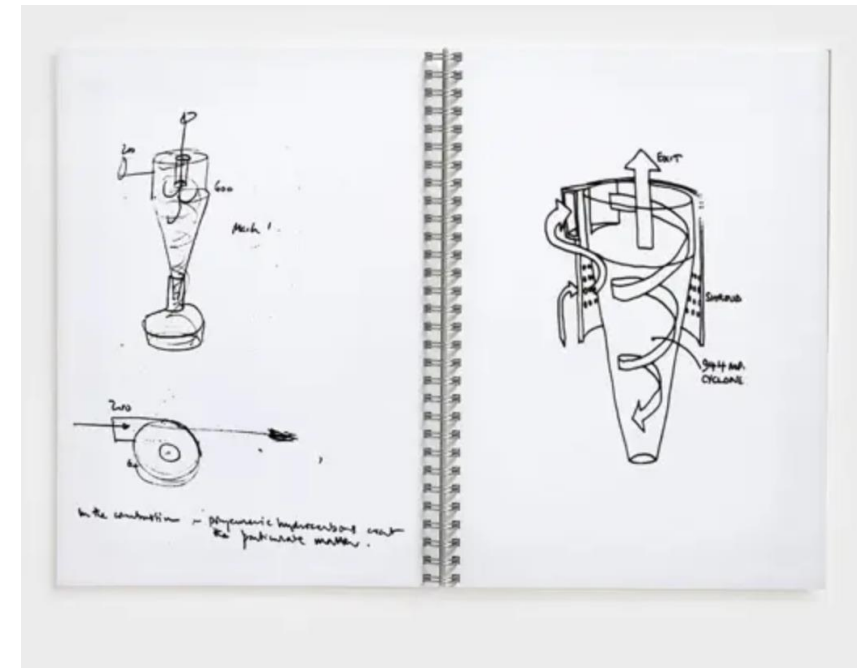
## PERSEVERANCE AND PERFECTIONISM

### 5,127 PROTOTYPES

James knew he was onto something, but it would take time to perfect his idea. Five years and **5,127 prototypes** later, he created DC01, the world's first bagless vacuum cleaner.



James Dyson  
British inventor, industrial designer and founder of the  
Dyson company



## Dyson DC01

- First bagless vacuum cleaner
- Launched in 1993.
- Costs £200 .
- Become bestseller in 18 months.





## Early Dyson prototype (1993)



**Dyson built 5,127 prototypes before success**