



**ISEP** INSTITUTO SUPERIOR  
DE ENGENHARIA DO PORTO



# Team Scarabreed

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- **State of the art**
- **Project management**
- **Project development**
- **Marketing plan**
- **Flyer and logo**
- **Eco-efficiency Measures for Sustainability**
- **Ethical and Deontological Concerns**

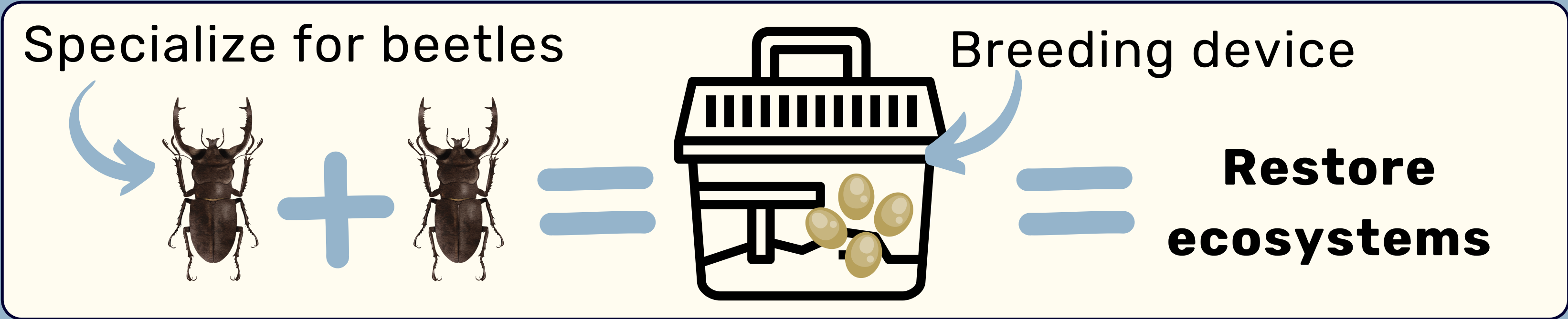
# **Table of contents**



# Problem



# Objectives

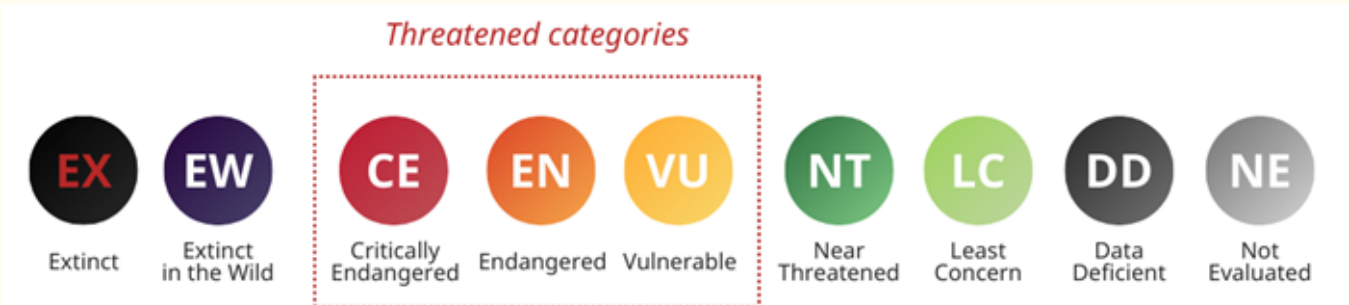




# Research

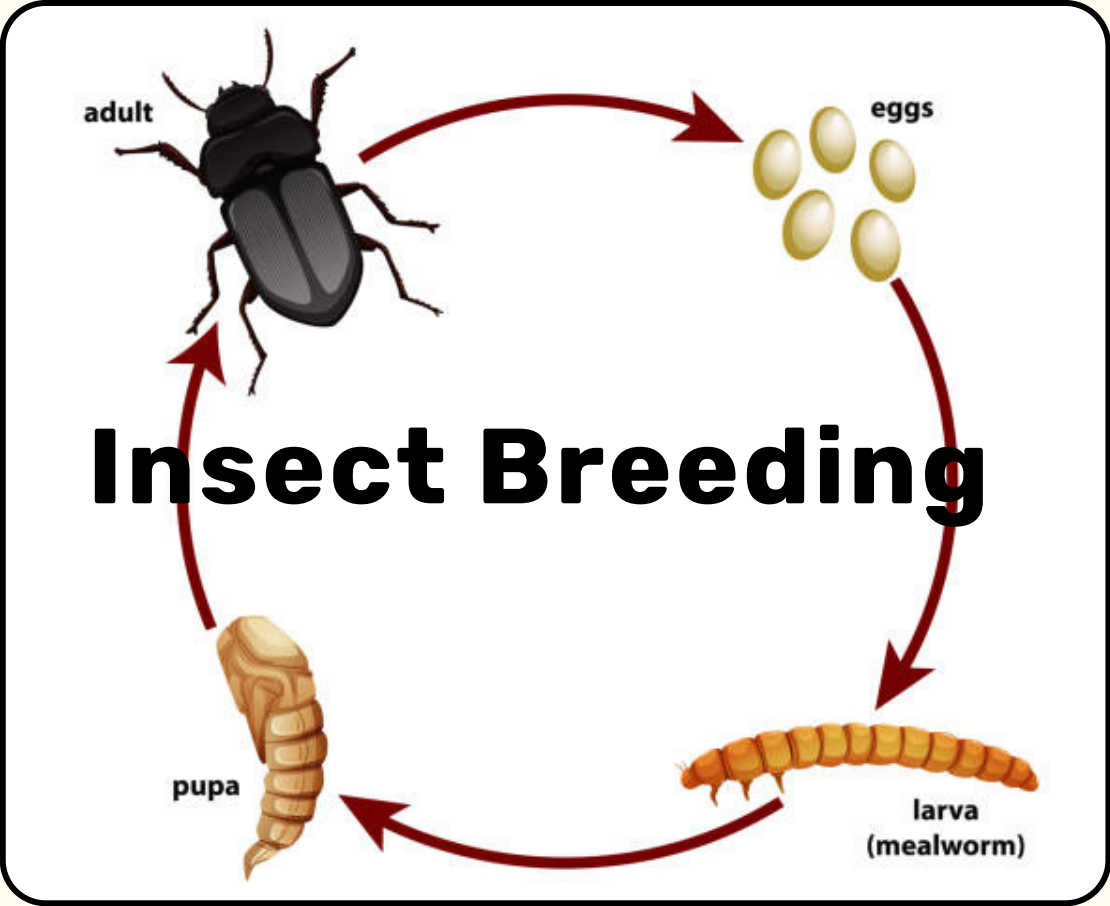


## IUCN Red List



## Public Awareness

- Learning Outcomes
- Foster Environmental Stewardship
- Facilitate Citizen Science Initiatives
- Promote Community Engagement



## Existing vivariums



State of the art

# Scarabreed's differentiation



Automated  
environment control

Sustainability features

Modular design for  
scalability

User-friendly interface

Real-time data logging  
and monitoring



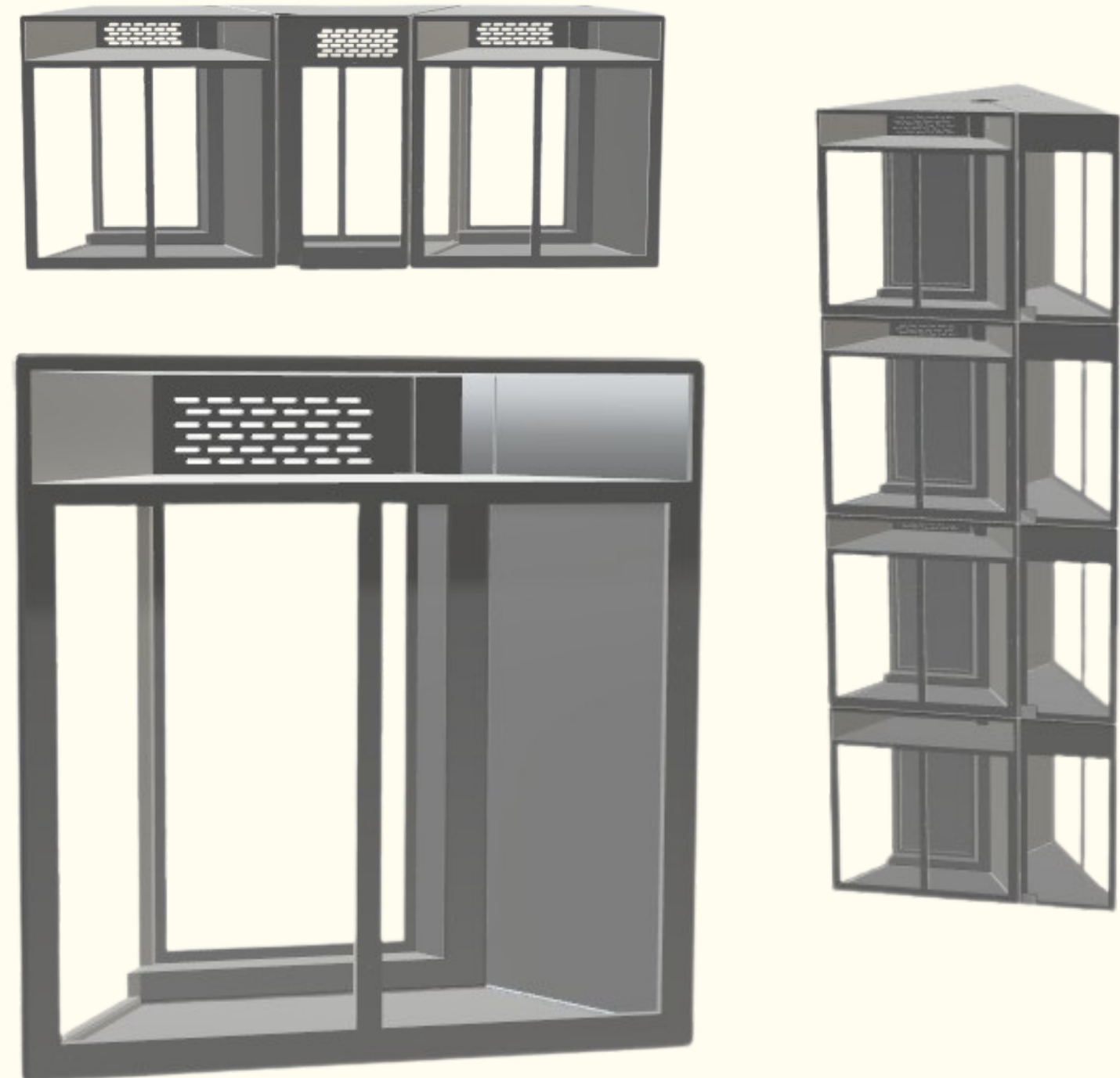




# Design

- Main driver is modular use to allow scalability, customization and transportation

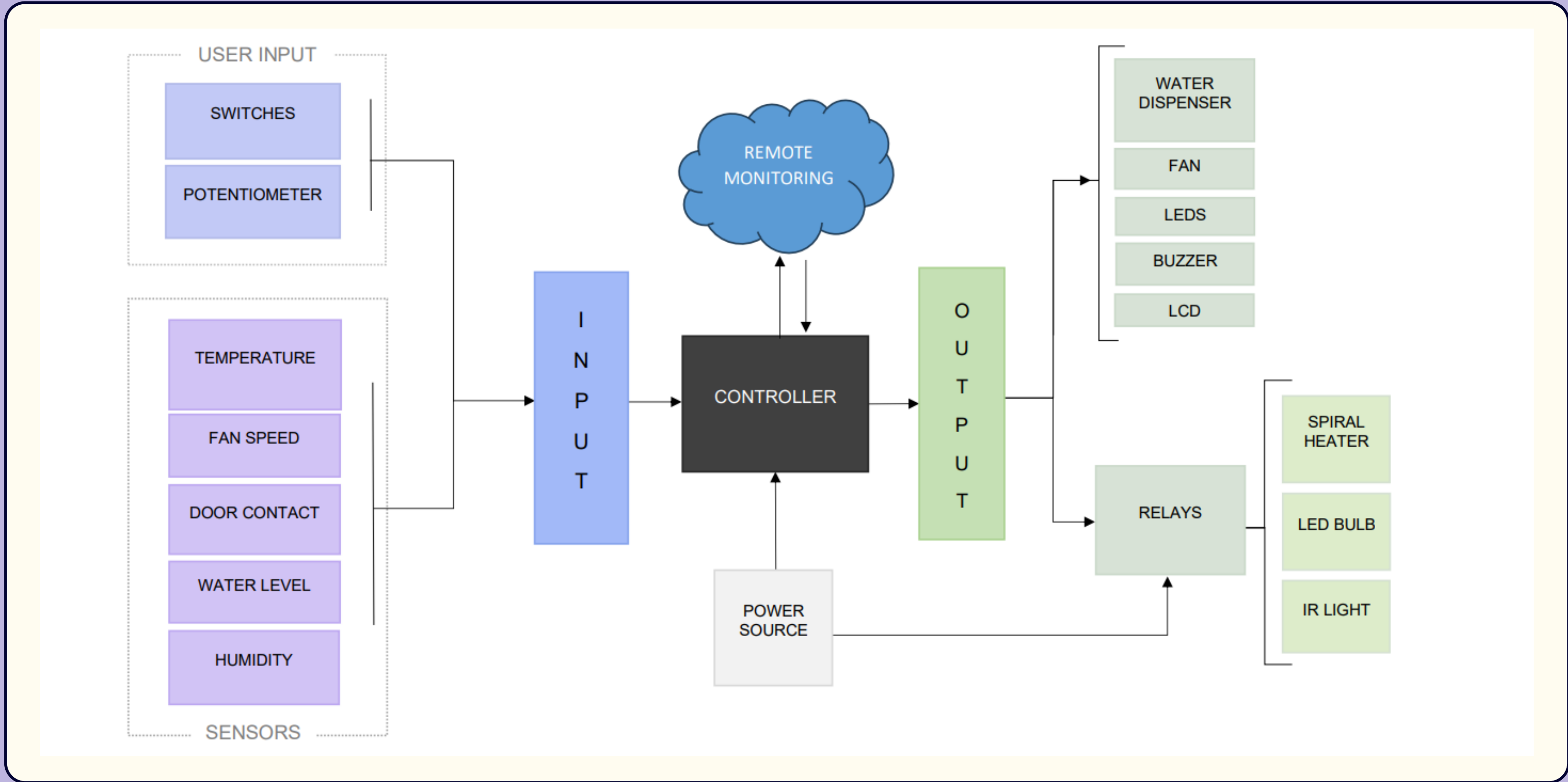
- Access organisms and technical compartment from front and back
- Monitoring + influencing environment
- Built-in cable ducts







# Black Box





# Value proposition

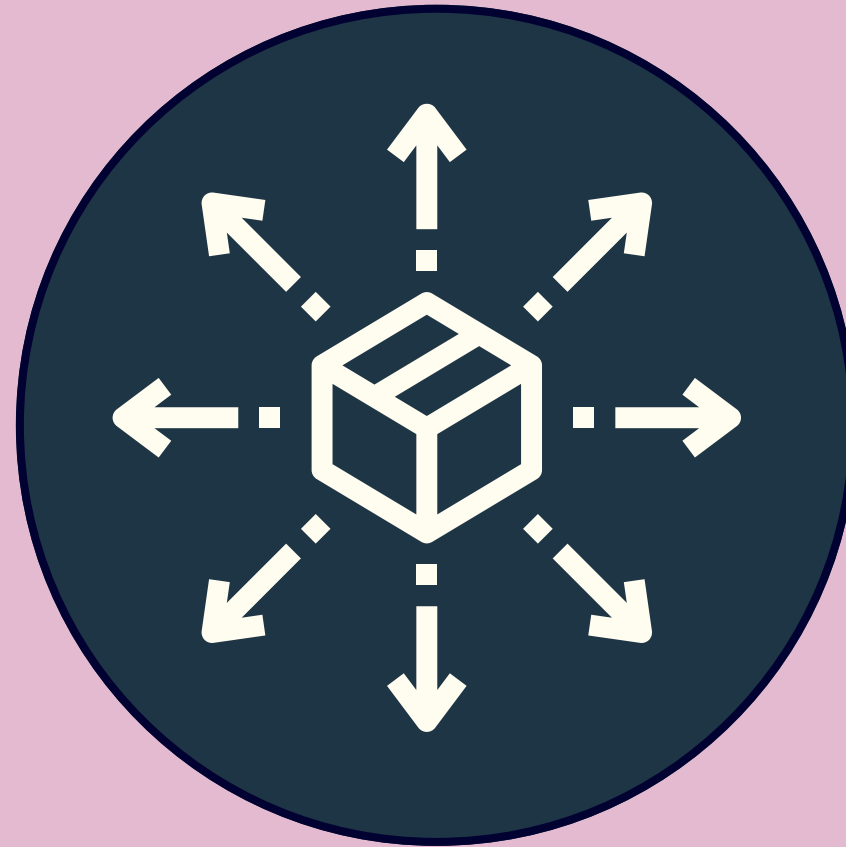
FOR	(semi) Professional insect enthusiasts, environmentalists, nature organizations, biology teachers
WHO	Protect and breed endangered beetles, restoring ecosystems by breeding endangered beetles contribute to the recovery of ecosystems.
THE	Scarabreed’s Beetle Breeder V1 (BBV1)
IS A	Modular insect breeding vivarium
THAT	Revolutionizes beetle breeding and ecosystem restoration with Scarabreed's all-in-one vivarium: user-friendly, space-saving, and featuring integrated electronics for optimal breeding conditions.
UNLIKE	Competitors offering limited, non-electronic vivariums
OUR	Scarabreed provides a modular, all-in-one electric beetle breeding ecosystem that expands with your passion.



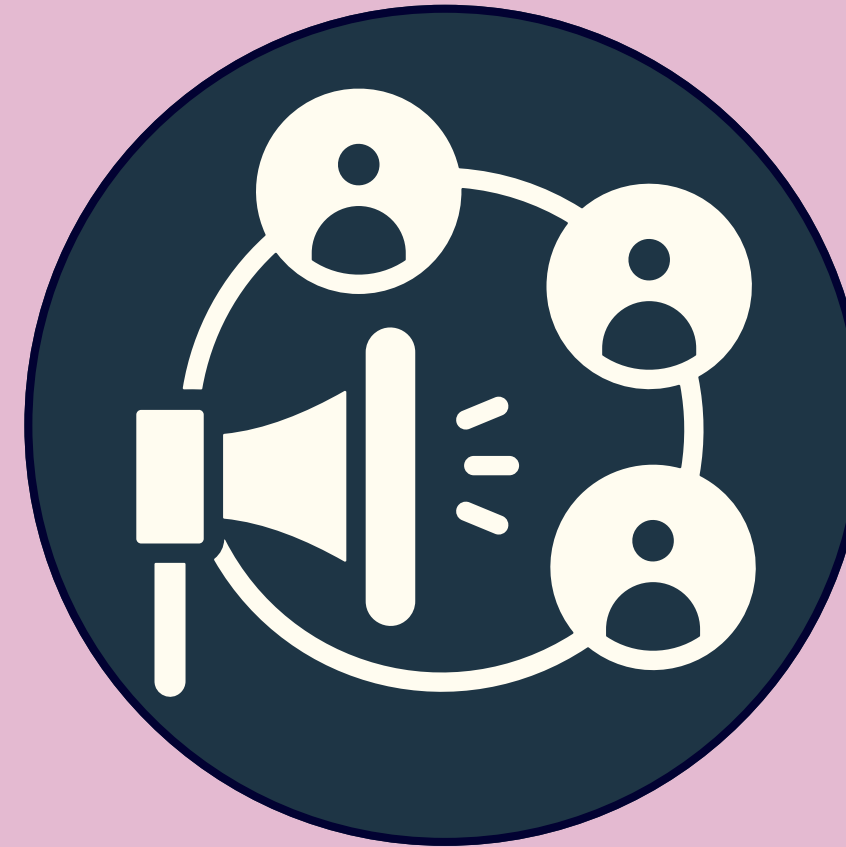
# Marketing Mix



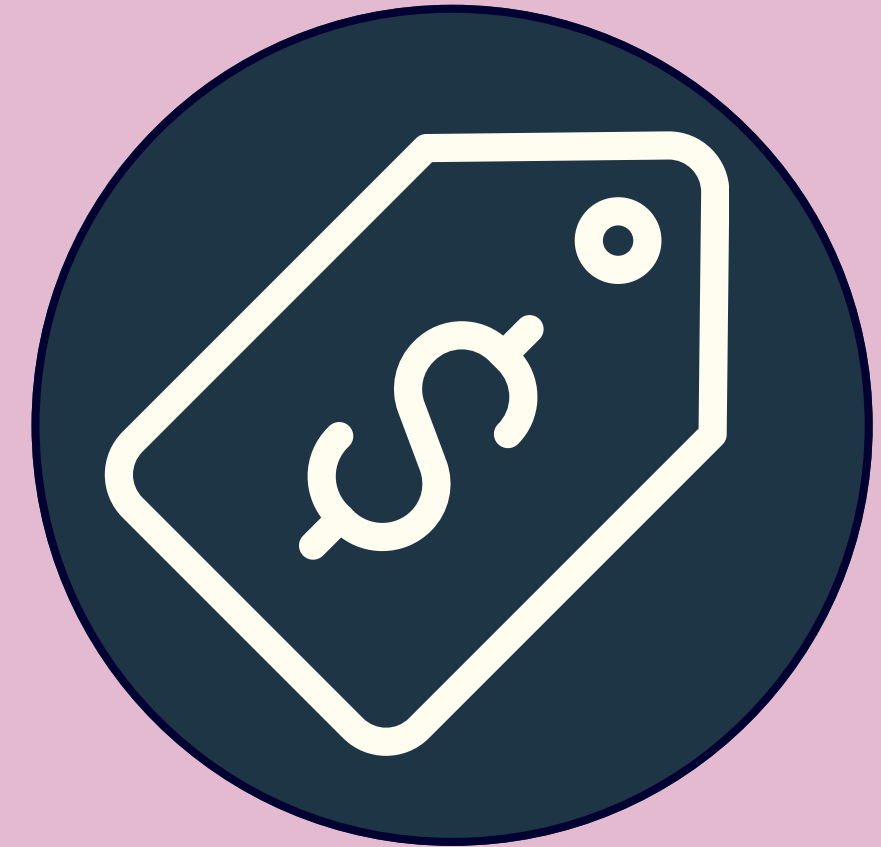
**PRODUCT**



**PLACE**



**PROMOTION**



**PRICE**

THE 4 PS



SCARABREED

BEETLE BREEDER V1

PIONEERING BEETLE BREEDING EXCELLENCE

ISEP

REDEFINING BEETLE BREEDING

Smart Breeding: Precision control for optimal conditions.

Scientific Innovation: Research-grade technology for professionals.

Sustainability: Eco-friendly design for responsible breeding.

Modular Design: Customize and expand as your breeding needs evolve.

SCAN ME

BBV1

SCARABREED

Preserve Biodiversity with Scarabreed. Your Beetle Breeding, Your Way!



# Env - Ec - So



- Cost-effective solutions
- Long-term value and Cheap prices
- Economic partnerships
- Ecotourism
- Sustainable agriculture support

- Customer satisfaction
- Employee Welfare
- Community engagement
- Improved Quality of Life and Ecosystem Services

- Habitat Restoration and Biodiversity Increase
- Improved Ecosystem Functioning
- Reduced Reliance on Pesticides
- Sustainable Materials
- Energy Efficiency
- Waste Reduction





# Ethics

## Engineering

- Engineers and designers make statements about the direction of the world.
- No harm is to come to the animals, the users or the environment during any phase of the lifecycle of the product.

### **Summarization of the code of ethics for engineers in 5 main rules :**

1. Hold paramount the safety, health, and welfare of the public.
2. To perform services only in areas of competence.
3. Issue public statements only in an objective and truthful way.
4. Act for each employer or client as faithful agents or trustees.
5. Avoid deceptive acts.



# Ethics

## Sales and Marketing Ethics

Guide in avoiding  
conflicts and unethical  
behaviour

Marketing is crucial for  
shaping perceptions of  
people and for creating  
societal divisions.  
Ethical responsibility!

## Environmental Ethics

Ethical breeding  
practices prioritize the  
welfare of the beetles  
involved

Reintroductions comes  
second to the ethical  
considerations on  
animal welfare.  
Minimise suffering.

## Liability

Obligations under the  
law: Primarily focus on  
harmful actions and  
consequences

Moral responsibility  
extends beyond legal  
obligations: Also consider  
positive actions and their  
outcomes (e.g. promote  
welfare)



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Your way !**