AZULOOP

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Smartifying everyday objects
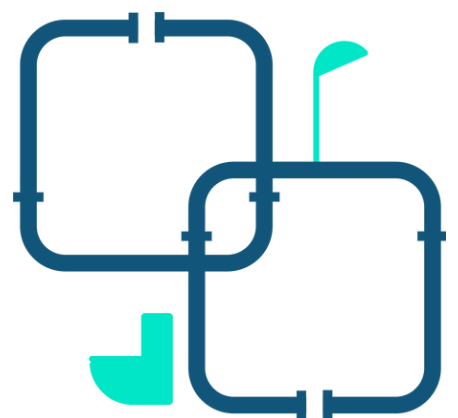
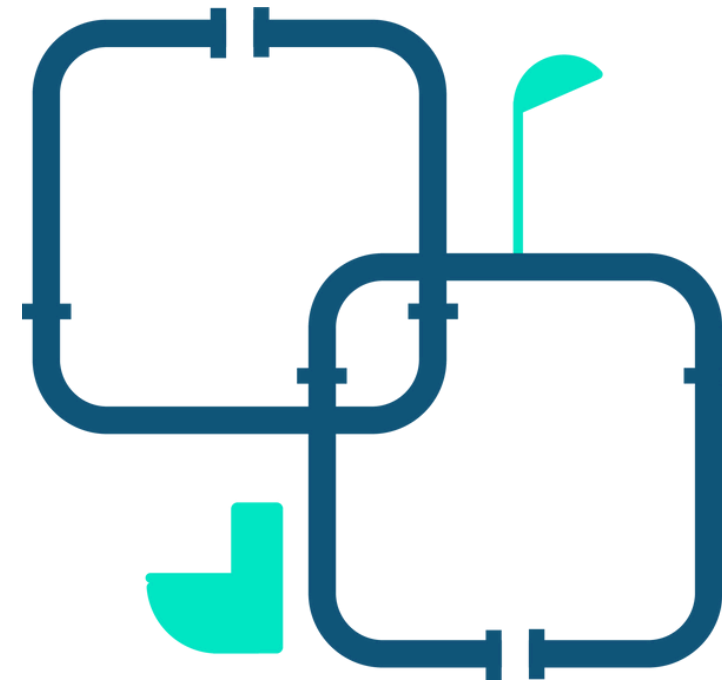ISEP INSTITUTO SUPERIOR DE ENGENHARIA DO PORTO

CONTENT INDEX

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Summary:
Our system addresses this issue by redirecting cold water wasted during shower warm-up to a tank above the toilet for flushing. This innovative solution conserves water, reduces waste, and promotes sustainability at the household level.
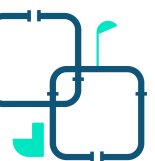
Problem:
Water scarcity is a growing global issue, with households contributing significantly to water waste. Simple, everyday actions like waiting for shower water to heat up result in unnecessary water wastage.

Water Wasted:
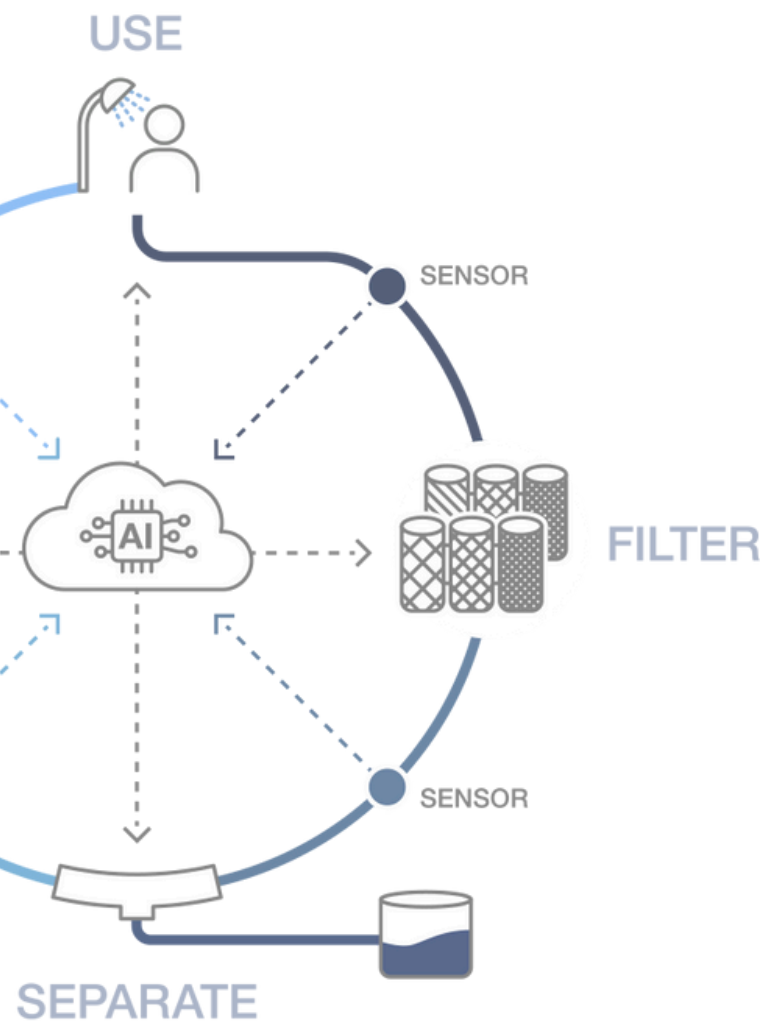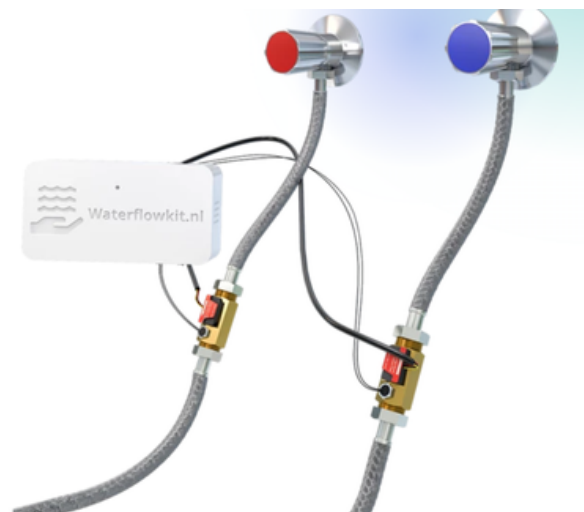5-10 liters/shower
14,600 liters annually

Performed studies
State of the Art

Requirements

- Recycle water from the shower
- Redirecting waste-water to the toilet tank
- User awareness

Performed studies

Ethics

Respecting society, sustainability, and responsibility.

We value safety, transparency, and smart water use.
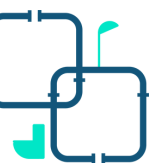

We promote AzuLoop with honesty and respect for consumer rights.

Our system supports eco-conscious living by reducing water waste.

Performed studies
Market

Macro trends
Social: Growing eco-awareness, especially among younger buyers
Environmental: Climate change boosts relevance

Target segments
Eco-conscious homeowner
Cost-driven property managers

Market Requirements

Affordable & energy-efficient

Minimal maintenance, easy installation

Clear environmental impact

No user behavior change needed

Performed studies

Sustainability

Maintenance
Repair when needed, extending the lifespan

Reuse
ABS case (durable materials)

Refurbish
Collecting the product, replace parts and resell

Recycle
Metal components Electronics

Economical sustainability
Cost reduction

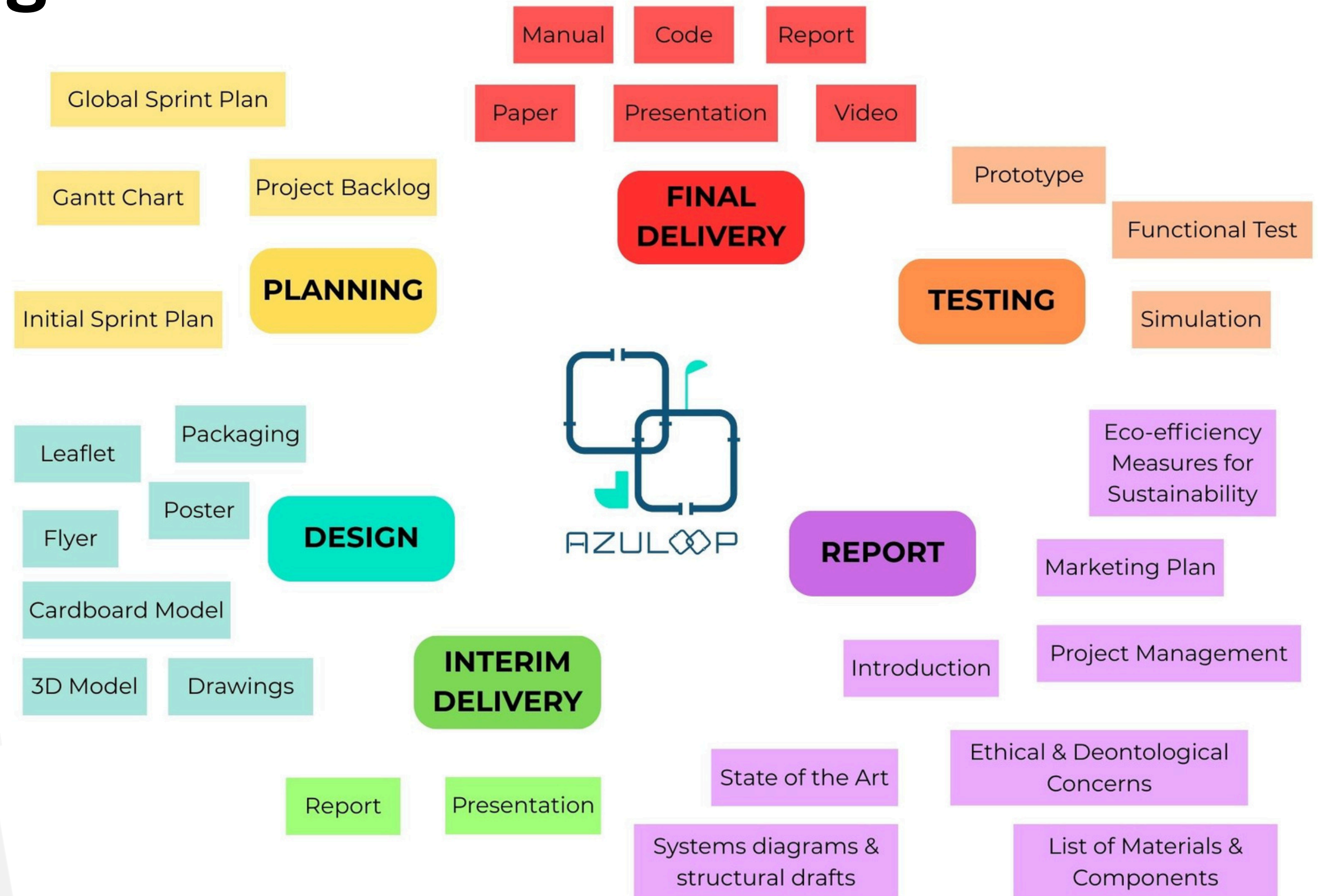**Social sustainability**
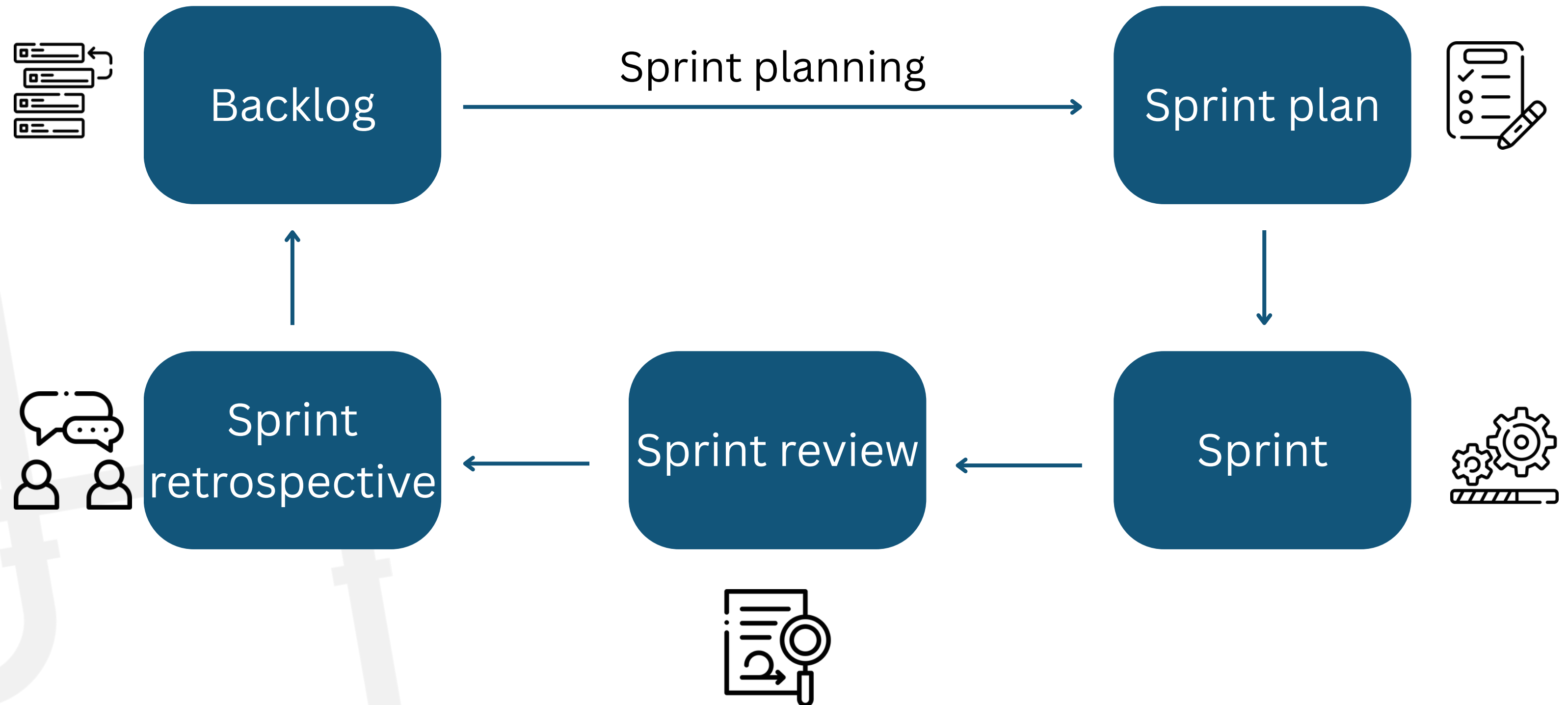Consistent and comfortable temperature, accessible

Project management
Project scope

PLANNING
- Global Sprint Plan
- Gantt Chart
- Project Backlog
- Initial Sprint Plan

FINAL DELIVERY
- Manual
- Code
- Report
- Paper
- Presentation
- Video

TESTING
- Prototype
- Functional Test
- Simulation

DESIGN
- Leaflet
- Packaging
- Poster
- Flyer
- Cardboard Model
- 3D Model
- Drawings

INTERIM DELIVERY
- Report
- Presentation

REPORT
- Eco-efficiency Measures for Sustainability
- Marketing Plan
- Introduction
- Project Management
- State of the Art
- Ethical & Deontological Concerns
- Systems diagrams & structural drafts
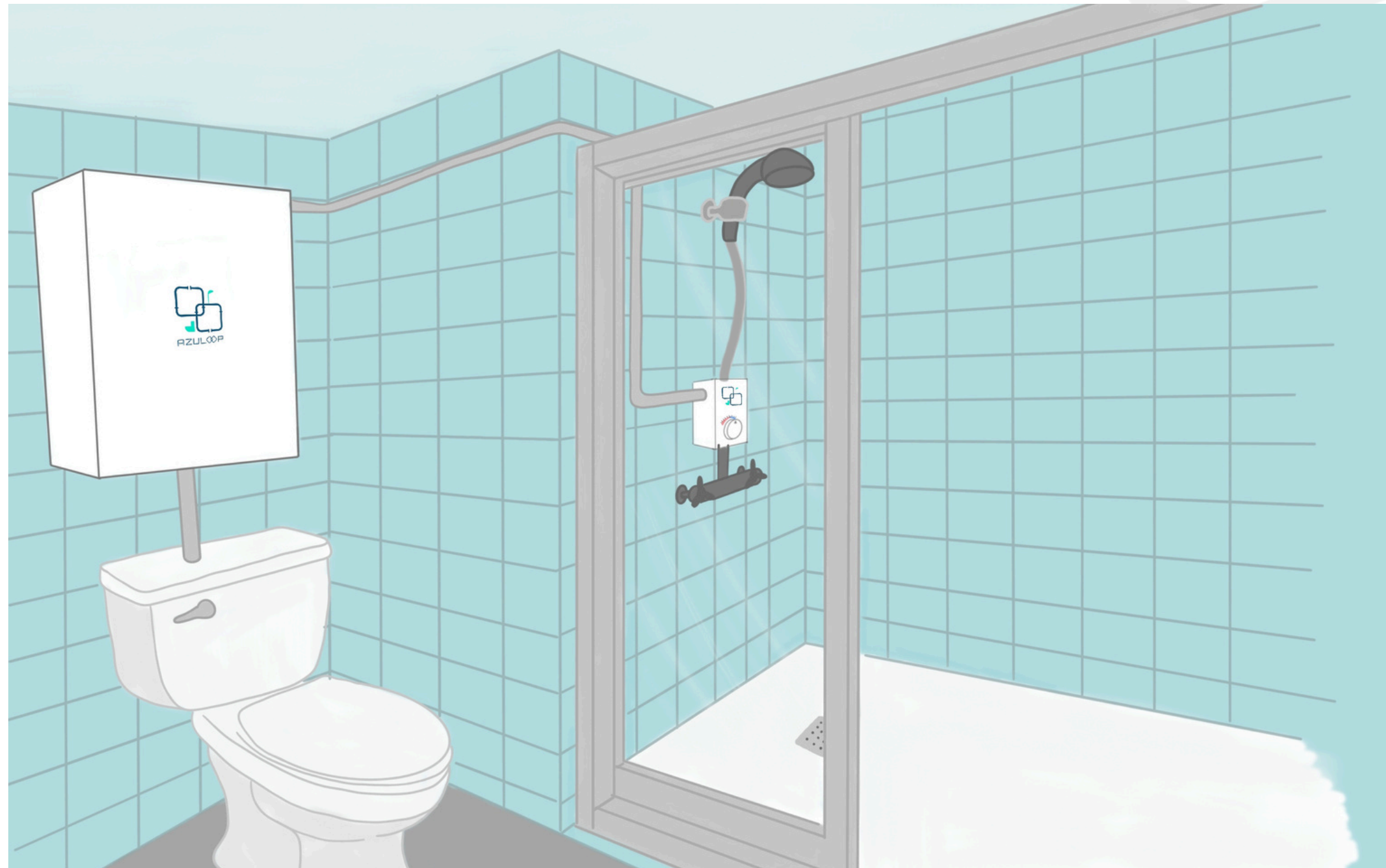- List of Materials & Components
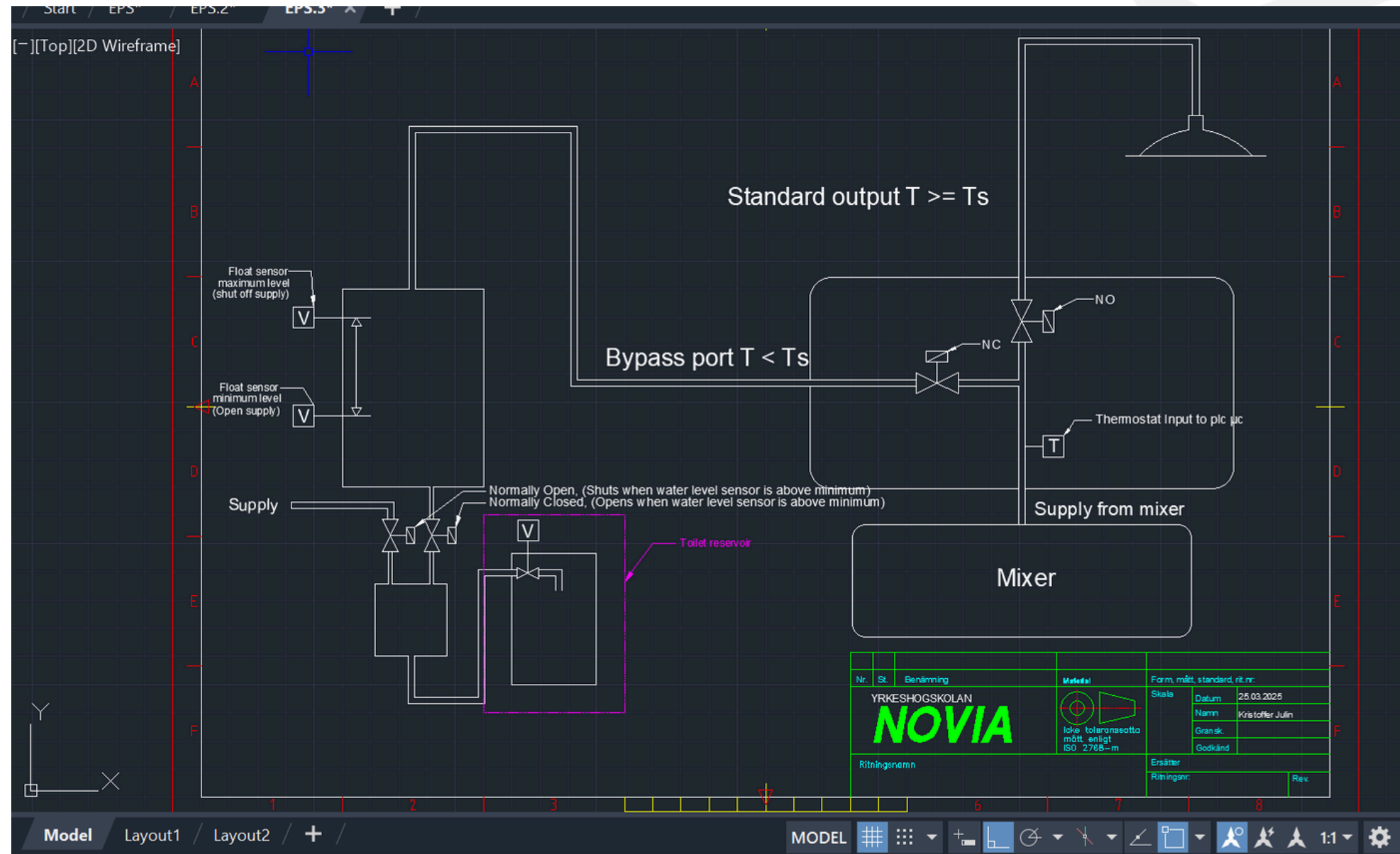
AZULOOP

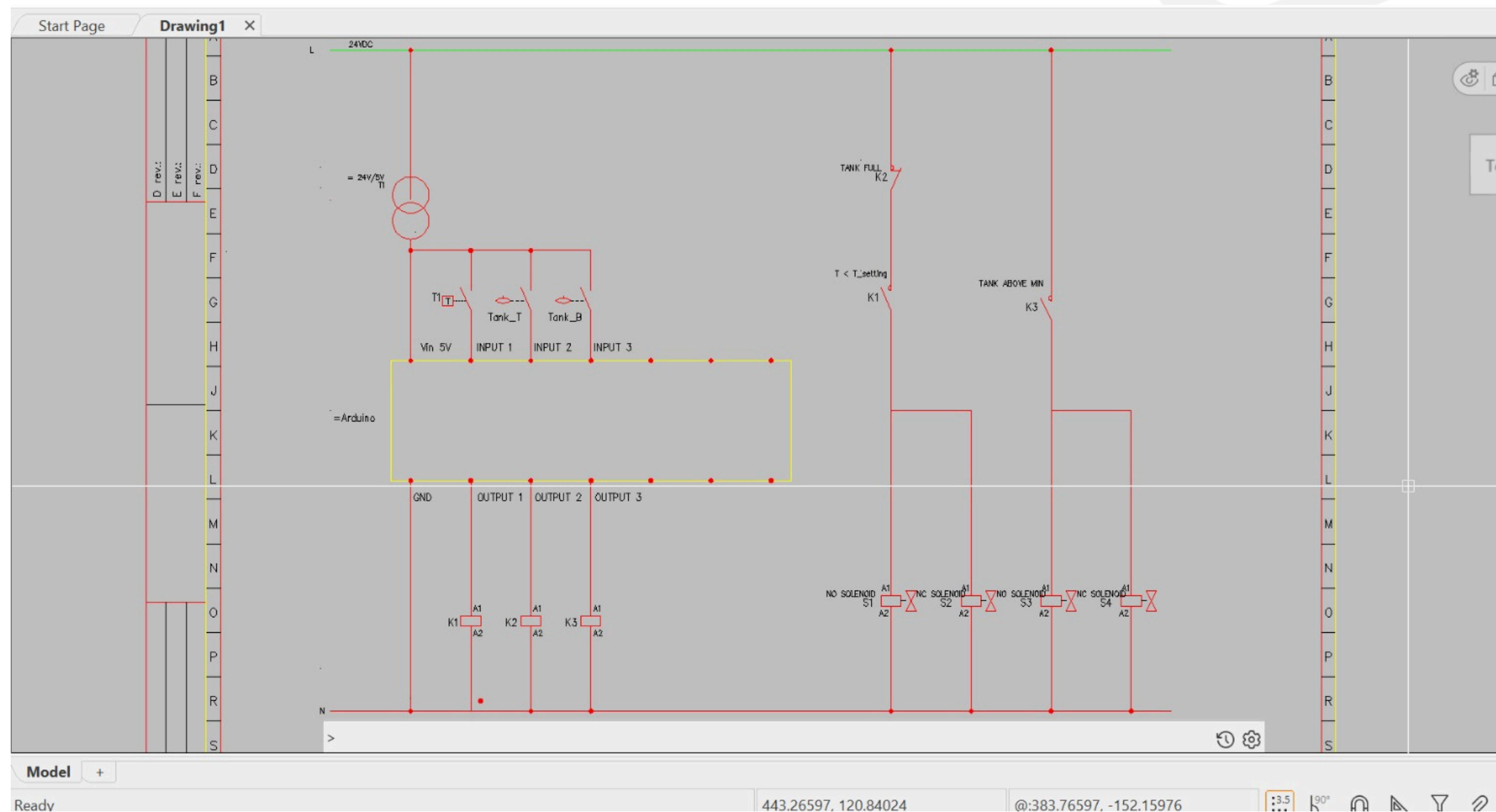# Project management
Scrum proces

Designed solution
Concept

Designed solution
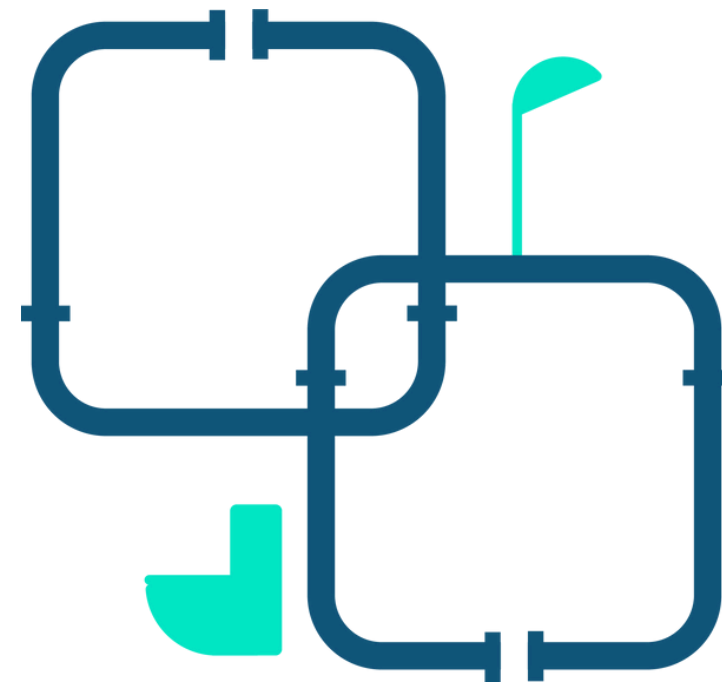*Device/structure*

Designed solution
Smart system

Conclusion

Combines smart systems for efficient operation and user customization.

Promotes eco-friendly practices, aligning with global water conservation goals.
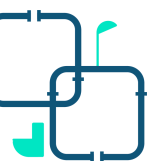
A scalable, cost-effective solution for environmentally-conscious households, contributing to a greener future.

The system effectively reduces water waste by repurposing cold water during shower warm-up for toilet flushing.

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Thank you