

Rethink It: Old Ideas, Thought Anew

Original German title: „DenkMal neu – Alte Ideen neu gedacht“

A three-day idea workshop at the Werkwoche 2024 of Technische Hochschule Augsburg. Our team of five took an ordinary drinking bottle and turned it into TEKBOO, a smart bottle with a personality that reminds you to drink water. In the final vote of all participants, it came first.

FORMAT

Three-day idea workshop

ORGANISED BY

THA_Funkenwerk with
the agency RAUM208

DATE

11–13 November 2024

PLACE

Ofenhaus, Gaswerk
creative quarter,
Augsburg

TEAM

Five people, mixed at
random

THEME 2024

How artificial intelligence
changes everyday
products

METHODS

Brainstorming, “What
if...?”, change of
perspective, prototyping

RESULT

1st place, 14 votes



The historic machine hall of the old Augsburg gasworks, visited on day 1.

01 SUMMARY

What happens in an idea workshop?

You get an everyday object and a simple task: make it better, make it smarter, or give it a new use. Then you spend three days asking unusual questions about it until a useful idea appears. At the end you build a model and present it to everyone.

This workshop was part of the **Werkwoche**, the international design week of the Faculty of Design at Technische Hochschule Augsburg (THA). Its name, “**DenkMal neu**”, is a play on words. *Denk mal neu* means “think again”, and *Denkmal* means monument. The workshop took place inside one: the old Augsburg gasworks.

The 2024 edition had one extra theme: how artificial intelligence changes the way we see everyday products.

Participants were put into teams at random. Our team chose a plain drinking bottle. We questioned it from every angle, found one real problem behind it (most people drink too little water) and built a model from modelling clay and LEGO. We called it **TEKBOO**. It won the vote with 14 votes.

DAY 1 · MON 11 NOV

Arrive and explore

Welcome, methods, random teams, choosing an object, tour of the gasworks.

DAY 2 · TUE 12 NOV

Ask and invent

Ten groups of questions, a wall of sticky notes, one clear concept.

DAY 3 · WED 13 NOV

Build and present

Sketches, a clay and LEGO model, a pitch and a vote.

Who ran it, and where

HOST EVENT

Werkwoche 2024

The international design week of THA's Faculty of Design, 11–15 November 2024, with workshops and talks on design, art, media and artificial intelligence.

ORGANISER

THA_Funkenwerk

THA's Institute for Entrepreneurship and Innovation. It helps students and researchers turn ideas into projects or companies, and offers to keep supporting ideas from the workshop afterwards.

FACILITATION

RAUM208

An Augsburg agency for communication and design, working in brand development, strategy, graphic design, web and photography. Two of its co-founders led the workshop. The agency has run this format at several editions of the Werkwoche.



The Ofenhaus, our workroom for three days.

A former factory as a workroom

The workshop took place on the grounds of the old Augsburg gasworks, a listed industrial monument that no longer produces gas.

Today the site is the **Gaswerk Kreativquartier**, a creative quarter with studios, coworking space and event rooms. Our workroom was the **Ofenhaus**, the former furnace house.

The place fit the task. A building that once had one job and now has a new one is a good place to practise giving objects a second life.

- The workshop ran in German. Drinks and snacks were provided, and everyone was asked to bring a creative tool of their own, such as a laptop, tablet or sketchbook.

What was on the table

A long table of ordinary things: an iron, an apple, a hammer, a bike helmet. Each team took one object. Ours was the dark drinking bottle with the black cap.



Stills from a short video of the object table, taken on day 1. Tap a number to see what it is.

- | | | | | | |
|---|------------------------------|----|----------------|----|-------------------|
| 1 | Table mirror | 10 | Compass set | 19 | USB charger |
| 2 | Steam iron | 11 | Paintbrush | 20 | Potted plant |
| 3 | Hammer | 12 | Scissors | 21 | Sunglasses |
| 4 | Tape measure | 13 | Pliers | 22 | Metal straw |
| 5 | Lighter | 14 | Fork and spoon | 23 | Screwdriver |
| 6 | T-shirt | 15 | Hole punch | 24 | Set square |
| 7 | Packing tape | 16 | Apple | 25 | Roll-on deodorant |
| 8 | Zebra towel | 17 | Computer mouse | 26 | Bike helmet |
| 9 | Drinking bottle · our object | 18 | Power strip | 27 | Spray can |

Arrive and explore

Meet strangers, learn the methods, choose an object, and walk through a factory that got a second life.



The welcome. The facilitators explain the three days.

Welcome

The workshop started in the Ofenhaus with a short welcome. The facilitators explained the plan for the three days and the theme of the year: artificial intelligence and how it changes the way we see products.

Teams by chance

Nobody chose their own team. Participants were mixed at random, so most of us worked with people we had never met.

Each team then took one object from the table. The task was the same for everyone: keep the object, but make it better, make it smarter, or give it a new use. We took the bottle.

The methods

Before any ideas, the facilitators wrote the methods for the coming days on a flipchart. Each one is a way to stop thinking in habits:

Akteursmaps Brainstorming Say every idea out loud. No judging yet.	Mindmapping Mind mapping Start with one word and branch out to related ideas.	Storyboarding Storyboarding Draw how a person uses the product, scene by scene.	Mood Boards Mood boards Collect images and colours to define a look and feeling.
Akteursmaps Stakeholder maps List everyone who deals with the product and how they connect.	Perspektivwechsel Change of perspective Look at the object as a child, a critic, an animal or an alien.	Was wäre wenn...? “What if...?” Change one rule of reality and see what follows.	Reizwort-Analyse Trigger words Combine the object with a random word to force new links.

Tour of the gasworks

Later that day we left the room for a guided tour of the old gasworks: the machine hall, the old engines, iron railings and tall arched windows.

The tour set the tone. These halls were built for one purpose and are now used for something completely different. That was exactly our task for the bottle.

- Every day had time for a break: coffee, snacks and conversations with people from the other teams.



The tour, inside one of the historic halls.

Ask and invent

Ten groups of questions, one wall of sticky notes, and slowly one idea that kept coming back.

Part 1: invent something new

Each team got a sheet called **Teil 1** (Part 1) with ten groups of questions. Every group looks at the object from a different angle. Some questions are practical. Many are strange on purpose, for example: *Which Harry Potter house would your object belong to?* or *What would it be like in 500 years?* Strange questions push you past the first, obvious answers.

HOW IT WORKED

01	02	03	04
One person reads a question out loud.	Everyone writes their own answers on sticky notes, one idea per note.	All notes go on the wall under the question number.	The t disc the r and I for lir

THE TEN QUESTION GROUPS · TAP ONE TO SEE THE QUESTIONS AND OUR ANSWERS

GROUP 1 OF 10 · PERSÖNLICHKEIT & VERHALTEN

Personality & behaviour

- ? What if the product had a personality? How would it talk or behave?
- ? What if it suddenly became self-aware and could make decisions?
- ? What would it do if it had to read its user's mood and adapt?
- ? What if it suddenly had legs and could move?

OUR ANSWERS

Pushy	Analytical	Motivating	Helpful: keeps you from dying of thirst	Funny, smart	Sporty
Often feels neglected	Sour when you drank too little >:(	Wants to supply everyone with water			
Becomes comforting	Encourages you to drink	Would follow you around	Could motivate you by following you		

Technology & AI

- ? If an AI controlled the product, what unexpected habits could it develop?
- ? If an AI optimised it, which rules would it break?
- ? What if it could copy itself? How would that change the world?
- ? What is missing? Invent extra features.
- ? What prompt would turn the old product into something new?

OUR ANSWERS

Annoying

Refuses to serve when you've had too much alcohol

Every person gets a bottle

Syncs with other bottles: a leaderboard

Books your doctor's appointments

Measures water quality, so less water is wasted

Purifies water with a UV filter

Sends a reminder to descale

Measures how much you drank

Nags until you drink

Shows the nutrients inside

Health check through your saliva

Prompt: "Make a bottle machine that shares the world's water fairly"

Fantasy & fiction

- ? How could it help a superhero as a loyal sidekick?
- ? In a fairy-tale world, what magic would it have?
- ? What superpower would it have in the Marvel or DC universe?
- ? Which Harry Potter house would it belong to? Rebels or Empire in Star Wars?
- ? What shape would it take in the world of Walt Disney?

OUR ANSWERS

Fair water distribution

Water cannon

Hydration for dogs

Bottle + hydrant = fire extinguisher

Makes any warm or cold drink

Offers me a drink that matches my mood

Healing liquid

A bottle that is always full

Mermaid / siren

Aquaman

Hydration Man / Woman

Hufflepuff

Moana

The Genie

Bottle ghosts?

A bottle hierarchy: which bottle is the best?

Environment & adaptation

- ? What if it only worked at night or in the dark?
- ? How would it develop in a world where people cannot see or hear?
- ? How would it look on a distant planet?
- ? What could it be in 500 years, on a space station?

OUR ANSWERS

Glowing liquid

A special scent

It can float in the air

Wave sounds

Detects vibrations

Resists heat and cold

A huge distribution system

The bottle keeps you alive (oxygen)

Makes water from moisture in the air

Shows the nearest water sources

Biology & nature

- ? If it merged with an animal, which one would fit best, and why?
- ? If it were a living creature, what kind would it be?
- ? What would it look like if it were fully biodegradable and plant-based?

OUR ANSWERS

Marine mammal

A bird that is always flying

Camel / penguin

Elephant

Alpaca

Fish

Sperm whale

Dried gourd

Coconut shell

Cactus

How long would it last?

Loofah sponge

Each bottle has a different shape

Time & change

- ? What if it had to transform completely every 24 hours?
- ? What if it were tied to a certain time of day?
- ? If money, space and time did not matter, what could it do?

OUR ANSWERS

The contents adapt

The type of bottle changes, e.g. into a baby bottle

Tea time

Water filter (removes toxins)

Refills itself

Can make any drink

Taps into all resources

GROUP 7 OF 10 · HISTORISCHE & KULTURELLE VERBINDUNGEN

History & culture

- ? How could it be combined with ancient technology, such as a Roman aqueduct?
- ? What would it need in an extremely minimalist room?

OUR ANSWERS

Don't need a kitchen!

Not separate from the space

GROUP 8 OF 10 · SINNESWAHRNEHMUNG

The senses

- ? How would it smell? What scent could you add?
- ? If it were edible, sweet or salty? A fruit or a vegetable?
- ? Hard and cold, or soft and warm?
- ? What sound does it make? Does it hiss or clatter? Loud or quiet?

This group is not on our wall photos, so we cannot show the answers here.

GROUP 9 OF 10 · NUTZEN & ZIELGRUPPE

Use & target group

- ? What is it useful for right now? Why was it made?
- ? What need does it meet for the end user?
- ? Who was it invented for? Describe the users.
- ? How would a child describe it? What would need to change for children to use it?

This group is not on our wall photos, so we cannot show the answers here.

Criticism & opposite

- ? What would be the opposite of the product?
- ? What would its worst critic say?
- ? Would it win a prize? For what, and in which category?

This group is not on our wall photos, so we cannot show the answers here.

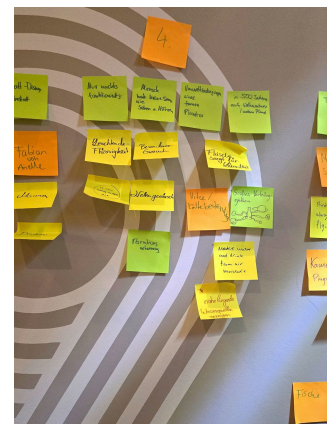
Questions translated from the original German sheet. Answers copied from our sticky notes. The photos of our wall show groups 1 to 7.



Our wall, groups 1 to 3. Each number marks a question group.



Group 2



Group 4

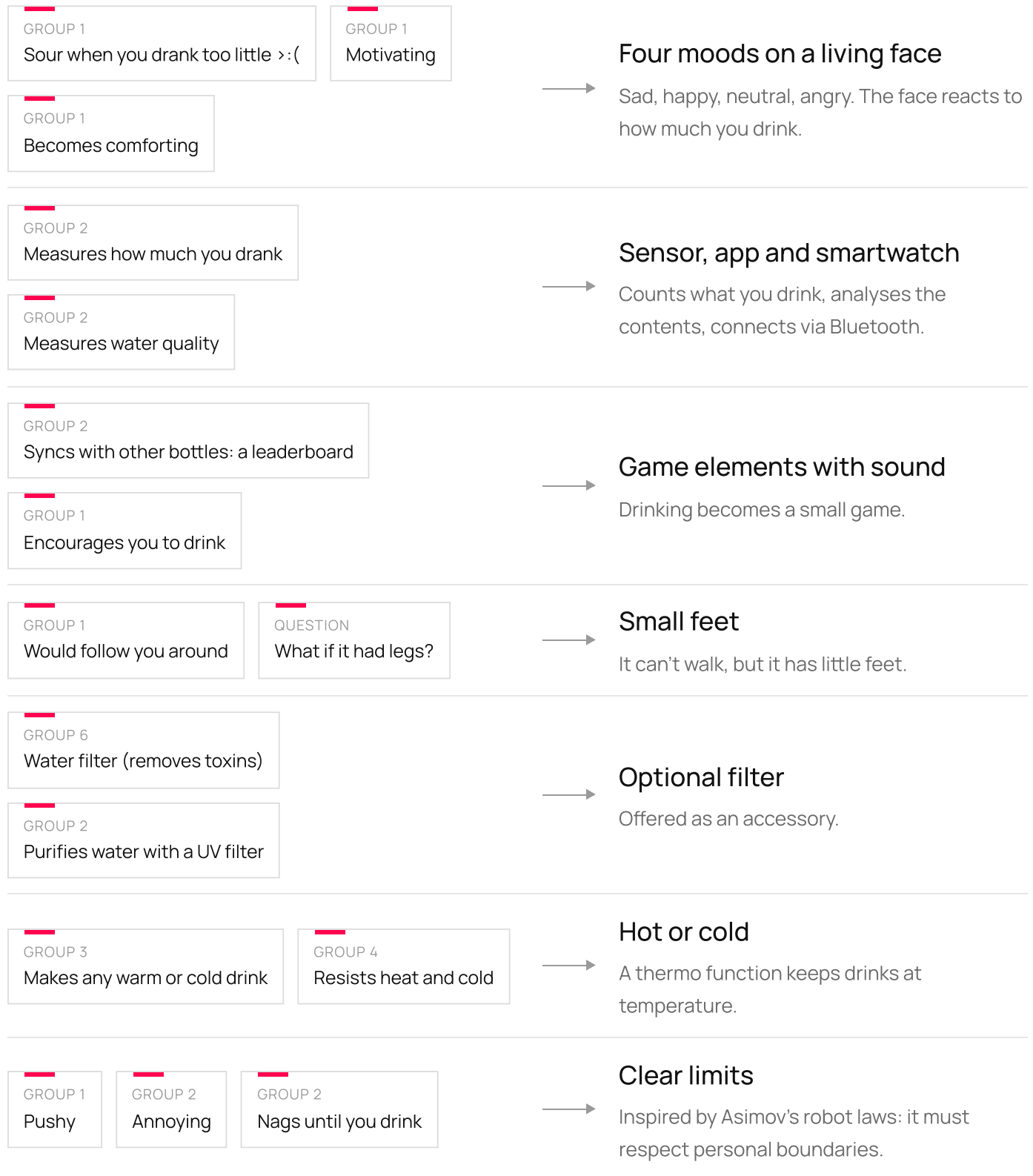
What the wall told us

The photos of our wall show **more than 70 ideas** on sticky notes, spread over seven of the ten question groups. Some were practical, like a UV filter or a reminder to descale. Many were playful, like a bottle that is a mermaid or a bottle that floats in the air.

When we read all the notes together, one theme came up again and again: the bottle as a character. It was *motivating, pushy, comforting, sour when you drink too little*. Under the fantasy sat a simple, real problem: many people forget to drink enough water. We chose this direction and made the bottle's personality the solution.

From wall to product: where each feature came from

No feature was invented at the end. Each one goes back to notes on the wall, often from the strangest questions. Tap a row to follow one idea.



GROUP 5

Each bottle has a different shape

GROUP 5

Coconut shell, loofah

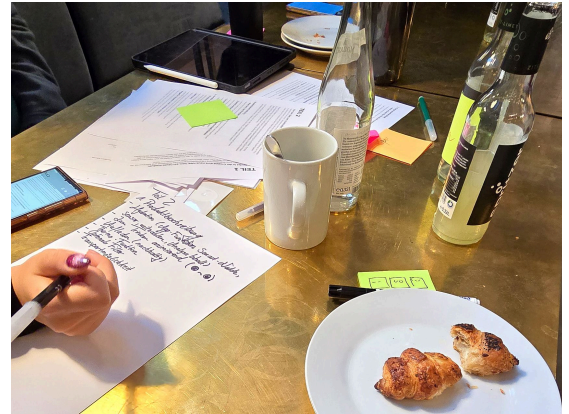
Replaceable parts, recyclable materials

Part of the sustainability check.

Part 2: from idea to a product that could exist

A second sheet, **Teil 2**, asked us to be realistic. Describe the product in detail. Name its strengths and its weak points. Define who would buy it and who would refuse it. Check if it could be sustainable. The sheet suggested imagining that we had to defend the product in front of an investor, a buyer and a critic.

We wrote our answers by hand. This is a clean version of them:



Writing up Part 2.

THE PROBLEM

People drink too little water.

Linked topics we noted: health, motivation and loneliness.

THE SOLUTION

Give the bottle a personality.

A bottle with a face that reacts and motivates you, so drinking becomes a small relationship instead of a task.

WHAT IT DOES

- Tracks how much you drink with a sensor and analyses the contents
- Connects to an app and a smartwatch via Bluetooth
- Encourages you to drink with a living face
- Rechargeable; keeps drinks hot or cold
- Optional filter as an accessory
- Small feet (it can't walk); game elements with sound

WHY IT IS BETTER

- Interactive motivation helps with the emotional hurdle of "I'll drink later"
- Several functions in one, so it replaces other bottles
- Gives you an evaluation of your drinking
- Clear limits, inspired by Asimov's robot laws: it must respect personal boundaries

WHO WOULD LOVE IT

- Adults from their mid-20s to mid-50s, all genders, in cities
- Higher education and income, for example in finance or media
- People who value progress, prestige and self-care
- Fitness and lifestyle fans, business people, people with health conditions, people who sit at a computer all day

WHO WOULD REFUSE IT, AND THE WEAK POINTS

- Older people and people with an alternative lifestyle
- More expensive; a lifestyle product
- Dependency, distraction, transparency
- Charging the battery, cleaning, more weight, the display

SUSTAINABILITY CHECK

- Less waste
- Fair production, recyclable materials
- Replaceable components
- Works with or without a battery

FEELINGS IT SHOULD CREATE

Joy, enthusiasm and an emotional bond.

Build and present

Paper, clay and LEGO. By the afternoon the bottle had a face, a name and an audience to convince.

Part 3: prototyping and presentation

The last sheet, **Teil 3**, turned the concept into something you can hold. It listed seven steps:

01 Sketch the product and try different shapes.	02 Build a prototype with LEGO, modelling clay or paper. Rough is fine.	03 Find a name. Collect ideas on sticky notes.	04 Choose colours: light or dark, friendly or threatening?
05 Write a slogan: one exaggerated advertising line.	06 Plan production and sales: factory, handmade or open source? Online or in shops?	07 Present the idea, its use and its users to all teams.	



Our table on day 3.

Giving it a face

The face became the heart of the design. We sketched the bottle with eyes and drew four moods: **sad**, **happy**, **neutral** and **angry**. Drink regularly and the bottle is happy. Forget it and it gets grumpy. The idea came straight from the wall, where one note read “sour (drank too little) >:(”.

Other sketches showed a 360° display, a fill-level display, a filter, a speaker and a charging point. We chose the name **TEKBOO**.

From bottle to TEKBOO

Then we built it. We covered the real bottle from the object table with teal and blue modelling clay, added a handle and small feet, and put little LEGO plants and flowers on top. Each team member took one part of the build. Drag the slider to compare.



BEFORE

A plain, dark, see-through drinking bottle with a black flip-top cap. One object among many on the table.

AFTER

The same bottle as TEKBOO, the clay and LEGO prototype. Clay covers the body and the cap: a teal top with a handle, a marbled blue middle and small feet. LEGO plants and flowers sit on top.

3D illustrations based on our photos of the real bottle and the clay model. Both are shown at the same scale, from the same angle.



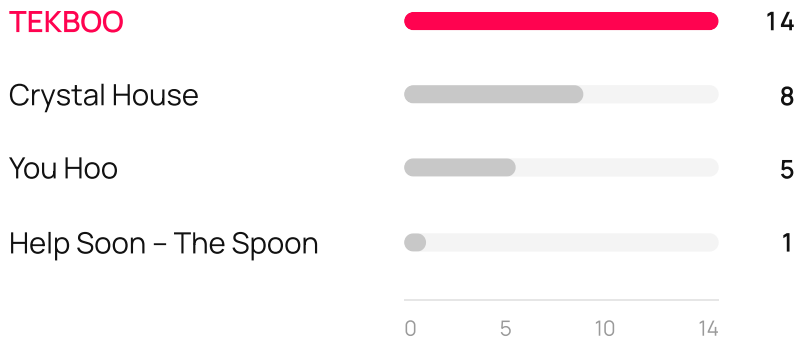
Building, layer by layer.



Lunch together before the final round.

Four pitches, one vote

Every team presented its idea to the whole group. Then all participants voted with tally marks on a flipchart.



Votes counted from the tally marks on the flipchart.

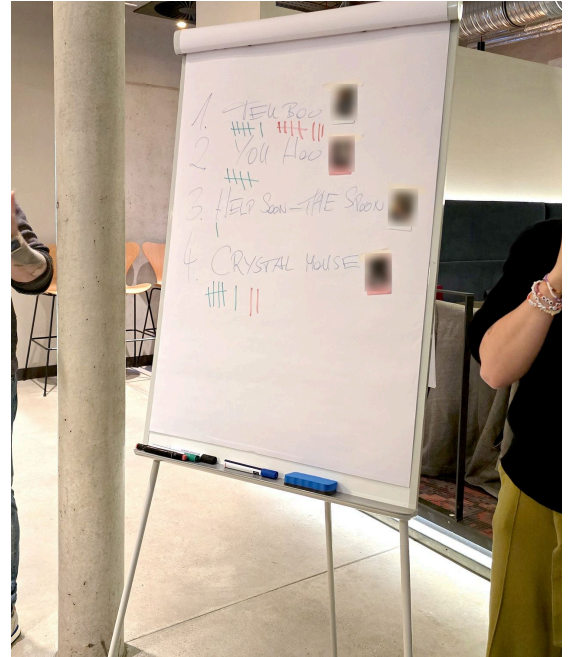
TEKBOO received 14 votes, as many as the other three teams together. The winning team got a small souvenir: a table-tennis paddle and ball, plus flyers from THA_Funkenwerk and the gaswork coworking space.

Why the idea worked

A real problem. Behind the playful face is something almost everyone knows: forgetting to drink water.

One clear character. A bottle with moods is easy to picture. The four faces explain the product without many words.

Honest limits. We named the price, the battery, the risk of dependency and who would never buy it. That makes a concept believable.



The vote: TEKBOO, You Hoo, Help Soon – The Spoon, Crystal House.



The souvenir.

Five people, one result

This was teamwork from the first sticky note to the last vote.



Team TEKBOO after the vote.

Nothing in this case study is the work of one person. All five of us wrote notes for every question, read them out and discussed them. We made the decisions together, for example to focus on drinking water and to give the bottle moods.

In the practical part we split the work. Each person took one part of the production. Then we put the parts together into one model and one presentation.

The workshop ran in German, and our notes switch between German and English.

01

Ideas.

Everyone wrote notes for every question.

02

Discussion.

Notes were read out and grouped together.

03

Decision.

The concept was chosen as a team.

04

Build.

Each person took one part of the production.

How I approach ideas

The workshop gave me a way of thinking I can repeat.
These are the rules I took from it.

01	02	03	04	05	06
Open up	Provoke	Cluster	Ground	Challenge	Make
Collect many ideas, judge none	Strange questions break habits	Find the pattern on the wall	Connect it to a real problem	Name the weak points	Build it, show it
01	Collect first, judge later.		02	Strange questions lead to useful answers.	
	Many notes on our wall were useless on their own. Together they pointed in one direction. Collecting ideas and choosing ideas are two separate steps.			Questions about the bottle's personality and mood sounded like a game. They produced our strongest feature: a bottle with feelings.	
03	Look for the pattern, not the best single note.		04	Connect fantasy to an everyday problem.	
	No single note won. The idea appeared when we saw the same theme in several question groups.			The bottle could have become a water cannon or a genie. We kept the character and tied it to a real problem: people forget to drink.	
05	Criticise your own idea early.		06	Make it visible early.	
	Our own notes called the bottle "annoying" and "pushy". We turned that into a design rule: the bottle has to respect personal limits.			A sketch or a rough model shows an idea faster than a long discussion. Our clay model made TEKBOO understandable at a glance.	
07	Decide together, build in parallel.				
	Five people who had just met, three days. It worked because ideas were shared openly and decisions were made as a group. Then each person took one part of the build.				

What this workshop trained

Each skill below is tied to something we actually did.

SKILL	WHAT WE DID	WHEN
Structured idea generation	Worked through the question groups with methods like “What if...?”, change of perspective and trigger words. Produced several dozen sticky-note ideas for one object.	Day 2
Finding the core idea	Read the whole wall, spotted the theme that kept coming back (the bottle as a character) and connected it to one everyday problem.	Day 2
User and market thinking	Described the target group by age, income, values and lifestyle. Named who would reject the product and why.	Day 2
Critical evaluation	Listed weak points openly: price, battery, dependency, weight, cleaning.	Day 2
Sustainability thinking	Checked materials, recycling, replaceable parts and energy use before building.	Day 2
Rapid prototyping	Went from sketches to a physical clay and LEGO model within one day.	Day 3
Naming and visual identity	Chose a name, colours and four facial expressions that carry the concept.	Day 3
Presenting	Presented the concept to all teams. Won the vote with 14 votes.	Day 3
Teamwork with strangers	Worked in a random team and reached shared decisions within three days, in German.	Day 1–3

Ideenworkshop „DenkMal neu – Alte Ideen neu
gedacht“

Werkwoche 2024, Faculty of Design

Technische Hochschule Augsburg

Organised by THA_Funkenwerk with RAUM208

[Official workshop page · Ideenworkshop „DenkMal neu“](#)

[@Gaswerk, Werkwoche 2024](#)

[Werkwoche 2024 · programme overview, 11–15 November 2024](#)

[Werkwoche · workshop lead from RAUM208](#)

[THA_Funkenwerk · organiser of the workshop](#)

Independent case study written by a member of the participating team. It is not an official publication of Technische Hochschule Augsburg, THA_Funkenwerk or RAUM208. Photos were taken during the workshop; faces of other participants are blurred for privacy. The before and after images are 3D illustrations based on our photos. Questions are translated from the original German workshop sheets.