



# product innovation project

Final Gala Graz 16.05.2011



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# Introduction: product innovation project



- Task from the industry
- October to May - Budget: 8.500 €
- Institute of Industrial Management and Innovation Research at University of Technology Graz
- Cooperation with Aalto University in Helsinki

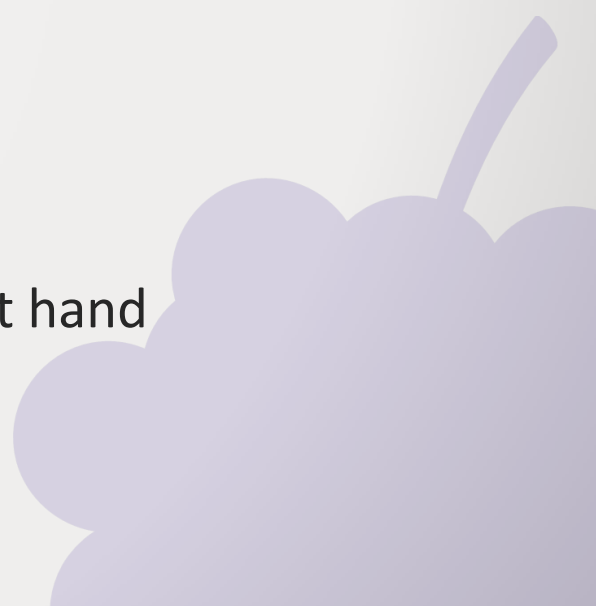
# Introduction:

# Task



- Company: Philips Consumer Lifestyle Klagenfurt

## PHILIPS

- most easy-to-use handblender in application
  - significant advantage in competition
  - a helping hand which is easy to operate, quick at hand and easy to clean
- 

# Introduction: Team

- International, interdisciplinary team:



Al-

Christian, AUT

Andrea, AUT

Christoph, TA

Karin, AUT

Matthias, FIN

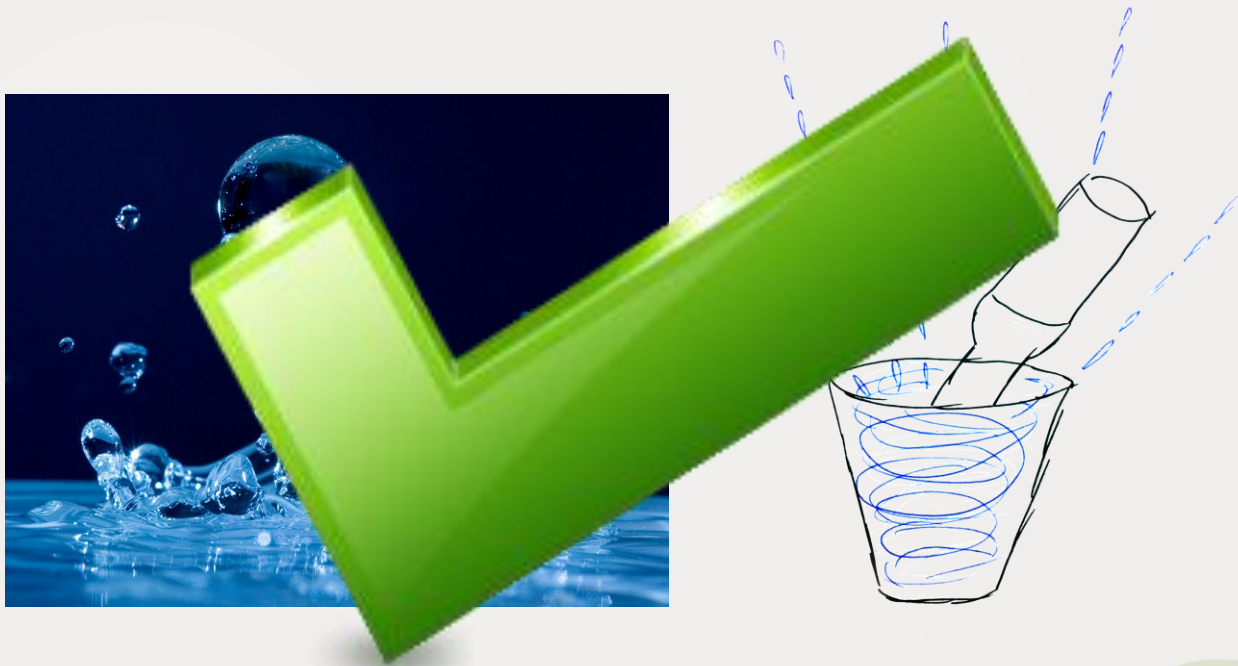
Jakob, AUT

Robert, AUT

Sandi, SLO

Christoph, AUT

# Challenge - Splashing



# Challenge - Buttons



# Challenge - Suction Force





# Challenge - Handling

KABEL



# Results



## Why two prototypes:

- General concept out of the morphological box
- Restrictions for the design or the engineering
- Fulfill all our most easy-to-use criteria

Prototype:

# Engineering Prototype



## PURPOSE OF THE PROTOTYPE

- Test Motor in blending operation
- test different Cage designs to get low Suction Force

The Engineering Prototype is just a functional Prototype not focusing on any design aspects!

Prototypes:

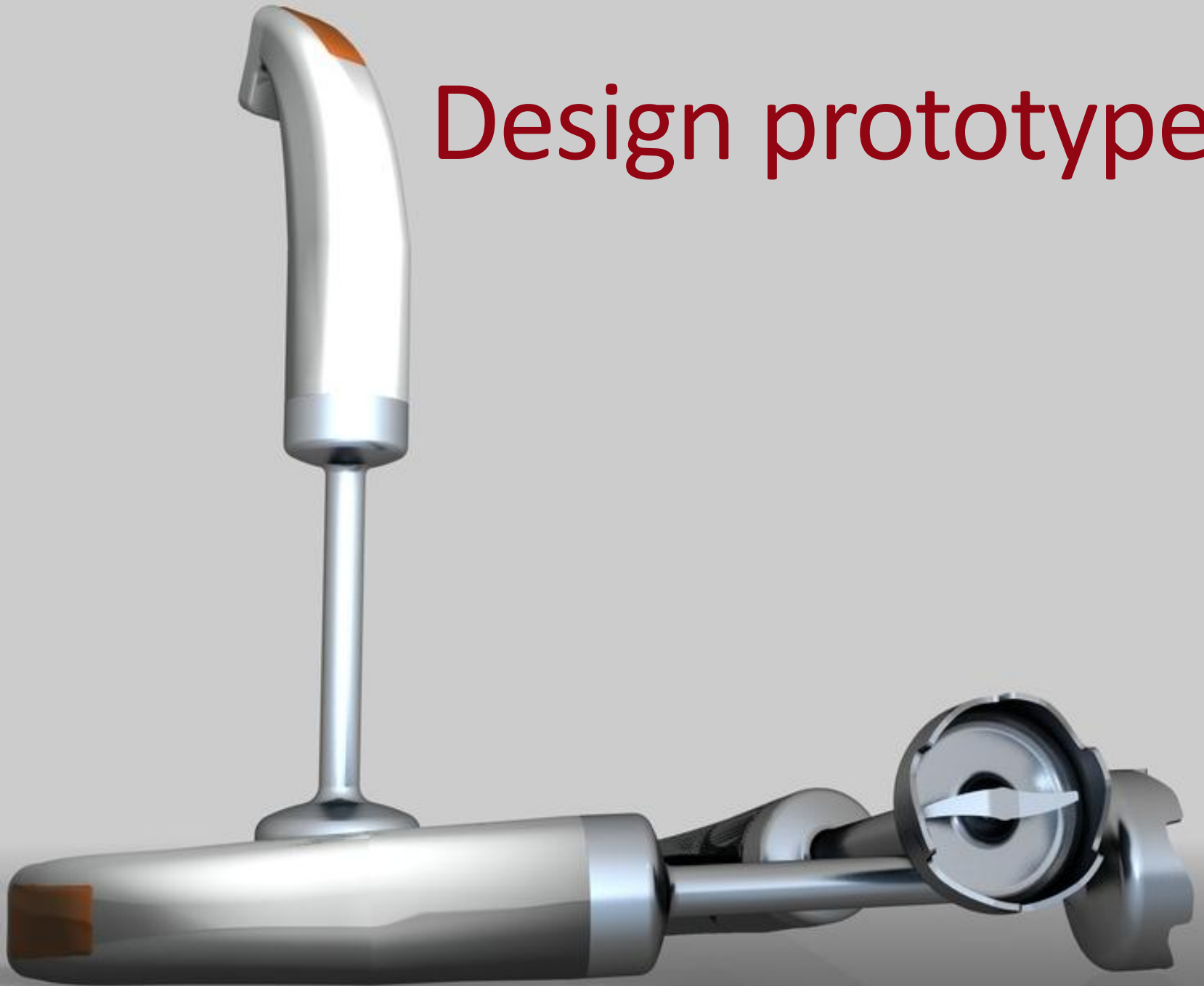
# Design prototype



## PURPOSE OF THE PROTOTYPE

- testing design ideas
- testing comfort and ergonomics
- testing visual appearance

# Design prototype



# Prototype:

## Design prototype



### **button**

- one mechanical button
- sensor for safety restrictions
- pressing with thumb
- sufficient size of button + easy to press

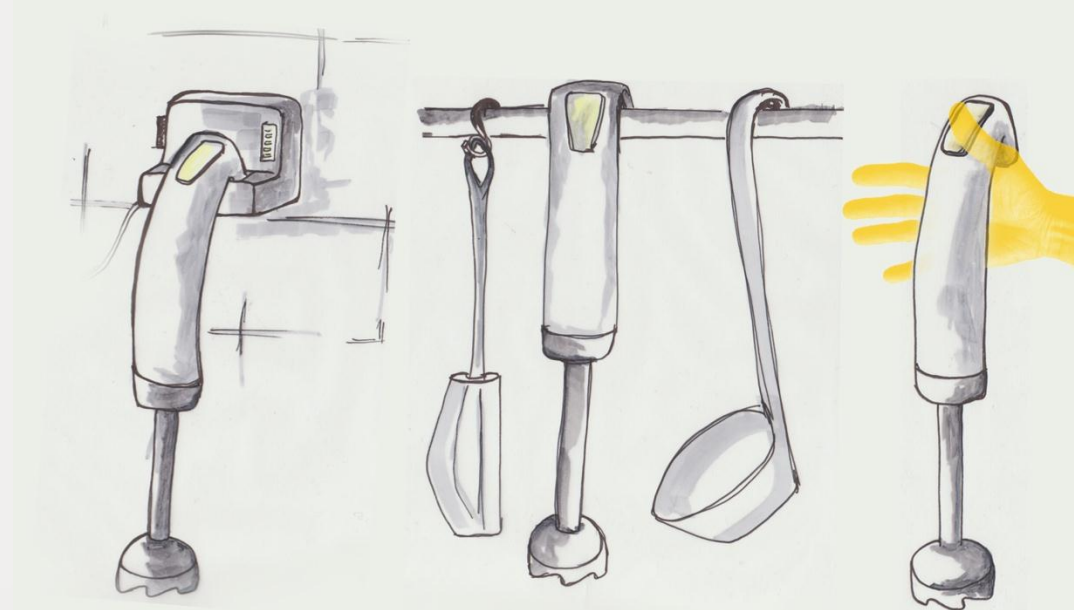
# Prototypes:

## Design prototype



### hook

- for better grip
- storing on the rod
- position of recharging contact



Prototypes:

# Design prototype



## **geometry of grip**

- smaller diameter due to the brushless engine
- curve for relaxed and natural hand holding
- space for engine + battery + electronics



Prototypes:

# Design prototype

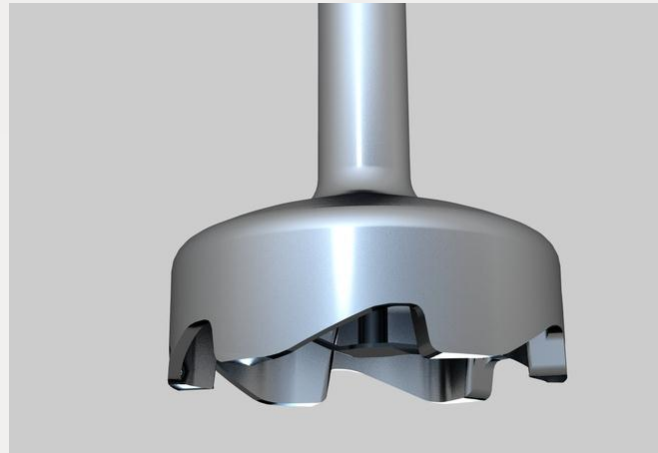


## light guidance

- blinking LEDs show the way to hold
- show that the device is switched on

# Prototypes:

## Design prototype



- inlets proceed to flowbreakers
- create the impression of dynamics

**barcage and shaft**



**Patent**

# product innovation project 2011



**PHILIPS**

PHILIPS Consumer Lifestyle Klagenfurt



# Video

