

# Software Engineering II

## Icebreaker

# Cocoa-Plane Project

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# Problem Statement

- Goal: Construct an airplane that



- carries a choco-kiss as a payload



- far as possible



- without harming the payload.





# Requirements

- Functional Requirements:
  - The airplane has to fly
  - The airplane carries a Cocoa-Kiss
- Nonfunctional Requirements
  - Takeoff is the platform area outside room 01.07.14
  - The Cocoa-Kiss is not damaged at take-off time.



# Project Organization

- 3 teams with up to 10 team-members each
  - Each team builds its own solution
- Resources:
  - Everything you can find can be used to build the plane
  - Possible sources:
    - Mathematik-Informatik
    - Garching reactor (“Atom Ei”)
    - Lidl- super market (about 1 km from TUM)
      - Tradeoff: buy vs. build:-)



# Project Schedule

- Project Duration: 15:10 - 16:20
- Activities (“Tailor your software lifecycle”)
  - Analysis and Design
  - Construction
  - Testing
- **Mile Stone:** Client Acceptance Test: 16:20-16:40
  - The teams perform their flights simultaneously
  - The client waits on the grass area below and measures the distance and determines the quality of the payload
- Determination of the winner: 16:45.



# Acceptance Criteria

- The plane must prominently display the logo and name of the team
- The plane must actually demonstrate flying behavior (throwing is not discouraged)
- The Cocoa-Kiss must be undamaged after the plane has landed
- The jury inspects the Cocoa-Kiss after the plane has come to complete standstill and determines its healthiness.
  
- The jury (=client:-) consists of
  - Lilith Al-Jadiri
  - Helma Schneider
  - Monika Markl



# Prize

- The team whose plane actually flies and covers the longest distance wins a prize
  - The distance is measured from the wall of the building to the first contact on the ground.
- Metrics used by the client:
  - **State of Cocoa-Kiss:** damaged (0 points), undamaged (30 points)
  - **Length of flight:** 0 m: 0 points, 1-5 m: 30 points, 5-15 m: 40 points, 16-20 m: 50 points, 21 or more m: 60 points
  - **Beauty of flight:** Throwing: 0 points, Flying: 30 points

First Prize:  
2 points added to Final exam result!

# Development Laboratories

- **Team 1: Seminar room**
- **Team 2: Glass room**
- **Team 3: Aquarium**

# The Crew of Cocoa-Airlines wishes you a good landing

