

Topic for the next 5 min

- The Problem
- The Solution
- The Scope of Project
- Where we are

- Team:
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What Greenhouse Is?

- **Def:** Building designed for the protection of tender or out-of-season plants against excessive cold or heat.
- Greenhouse has plants and resources
- Plants have needs
 - Light, Humidity, Temperature, Nutrition, etc.
- Our aim: **Satisfy the needs.**

Resources

- **Heating**
 - Rays of the Sun
 - Circulating steam, hot water, or hot air
- **Cooling**
 - Roof and end-wall openings
 - Ventillation system
- **Watering & Nutrition**
 - Integrated Spinkler System

What Management Is?

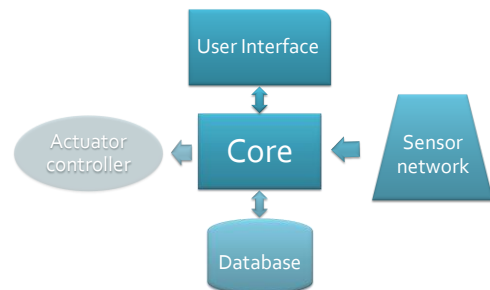
Control the resources to satisfy the needs.

1. **Sensing**
 - Temperature
 - Light
 - Humidity
2. **Deciding**
 - Is there a difference between expected and current values?
3. **Acting**
 - Control the right resource to decrease the difference

Scope of project: Temperature

- Sensing temperature
 - 4 nodes
 - 5 sensors per node (sum: 20)
- Networking
 - Bluetooth PAN
- Base station
 - Database: „Knowlegde“
 - Deceison making
- Remote GUI
- Scalable architecture

Parts of System



Task Allocation

Greenhouse Management

User
interface

Sensor network

Core &
DB

Mandave
DOSANJH

Daniel
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Michael
STAUGHAN

Peter
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Where we are? What's next?

- Done
 - Main path
 - Task allocation
- Next
 - Deeper Software Design
 - Prototyping of Communication