



FAKULTÄT FÜR
INFORMATIK

Presentation Digital Engineering Projects Flying Swarm

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Chair of Intelligent Systems

Organization

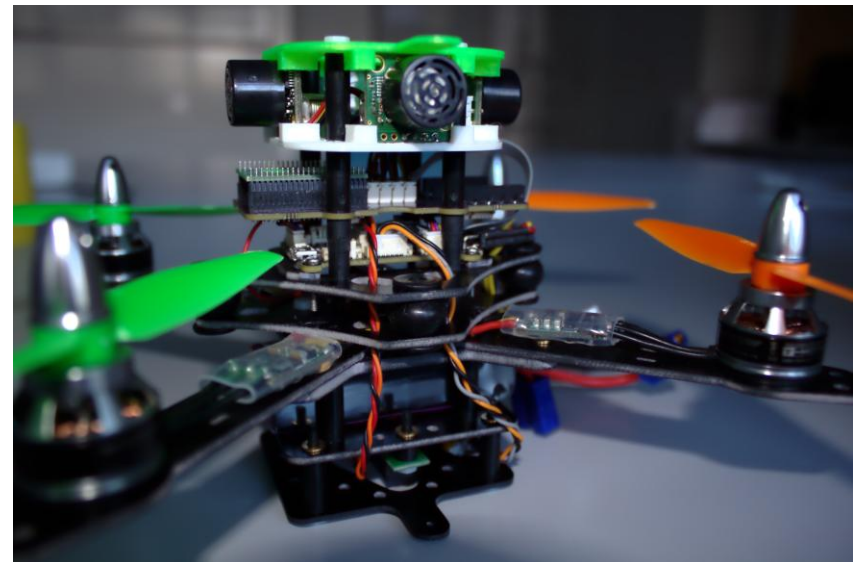
- Time and location:
 - Start: 12.04.2017
 - End: 15.07.2017 ++
 - Time: 15:00 (3:00 pm)
 - Place: G29-035
- Contact:
 - Christoph Steup: steup@ovgu.de
 - Sebastian Mai: sebastian.mai@st.ovgu.de
- Meetings:
 - Individual meetings organized by periodically by Team Leader
- Web:
 - [DE Project Overview](#)

ROS – Interface to Copters

- Current Software Paparazzi
- ROS (Robot Operating System)
- Already running in lab
- Goal:
 - Provide Status Information
 - Enable Remote Control of Copter
 - Reliable connect and reconnect
 - Multiple Copters
- We have:
 - Positioning (ROS aware)
 - Telemetry (Up and Down)
 - ROS capable PC on Copter



ROS



Swarm Behaviour Estimation

- Copters shall follow different Swarm Behaviours
- Currently only simple Attraction
 - Repulsion
- More Swarm Behaviour necessary
- Evaluation of Swarm Behaviour in Realistic Dimensions
- Goal:
 - Extend Swarm Behaviour
 - Cohesion, PSO
 - Evaluate quality
 - Evaluate robustness
- Evaluation in Real World
- Development may be Simulation-based

