Project report

crazyflie demonstration @ LNF22

Florian Huber

Institute of Networked and Embedded Systems

University of Klagenfurt

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# Project overview

The core part of this project was the development of a demonstration with the motion capture system “Optitrack” and the drone “crazyflie 2.1” of Bitcraze. This demo is shown at the “Lange Nacht der Forschung 2022” (LNF22) on the 20.05.2022.

## Used hardware

Host system:

* 8x Optitrack Flex13 Cameras
* 2x Optitrack OptiHub 2
* 1x Host PC (Win10)

Client system

* 1x Bitcraze crazyflie2.1
* 1x Bitcraze crazyradio PA Dongle
* 1x Client PC (Ubuntu 20.04)
* 1x Wand

## Used software

Host system:

* Motive Body 2.3.1
* MATLAB R2021b

Client system:

* crazyswarm <https://github.com/USC-ACTLab/crazyswarm>
* crazyflie client <https://github.com/bitcraze/crazyflie-clients-python>
* ROS Noetic Ninjemys <http://wiki.ros.org/noetic>
* Python 3.8

## System overview

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Automatisch generierte Beschreibung

Figure 1 (overview of crazyswarm)

# Workflow for showing the demo

## Host system

* Startup the Host PC
* Start Motive