

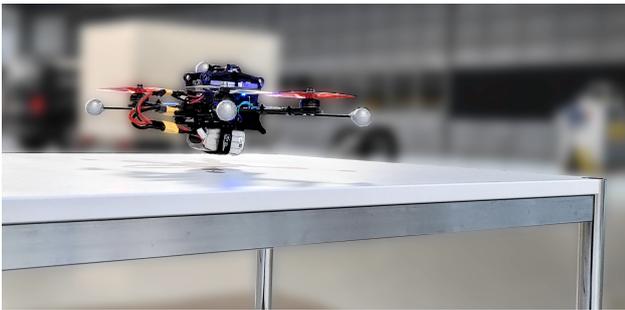
Agile Quadrotor Construction

Bachelor Thesis

Autonomous Aerial Systems

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Description

Recently the Robotics and Perception Group of the University of Zürich open-sourced their agile quadrotor platform *agilicious* [1]. To this point the Autonomous Aerial Systems Lab offers a Bachelor Thesis in which the platform will be re-build, tested, and its capabilities analyzed.

Work Packages

The work will be split in the following (adjustable) work packages (WP):

- WP1: Literature and background research on the *agilicious* platform.
- WP2: Identify and order necessary hardware components.
- WP3: Design and 3D-print missing components.
- WP4: Demonstrate the final hardware in a flying scenario.

Requirements

- Student in a relevant field, e.g. robotics, aerospace, mechanical engineering, electrical engineering or similar.
- Knowledge in electrical and mechanical engineering.
- Programming experience in Python.
- Motivated, willingness to work independently.

What we offer

- Access to state-of-the-art hardware and our flight arena for real world experiments.
- Close supervision with weekly meetings.
- Contacts to leading international research institutions and researchers.

Additional Information

- We are flexible in terms of starting date.
- The student is free to work remote when possible.

If you are interested or need further information feel free to contact:

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[1] P. Foehn, E. Kaufmann, A. Romero, R. Penicka, S. Sun, L. Bauersfeld, T. Laengle, G. Cioffi, Y. Song, A. Loquercio, and D. Scaramuzza, "Agilicious: Open-source and open-hardware agile quadrotor for vision-based flight," *Science Robotics*, vol. 7, no. 67, 6 2022.