

Lausanne, 4 September 2023

Reference letter for Leonardo Avoni

To Whom it May Concern,

I am pleased to provide a reference letter, recounting the academic and personal qualities of Mr. Leonardo Avoni. This letter is written by my collaborator Dr. Charalampos Vourtsis, who advised and worked closely with the student. I have read and approved this letter.

Leonardo carried out his master thesis project in my lab in the spring semester of 2023 and received the grade of 5.75 (where 4 is pass and 6 is maximum). His objective was to develop and implement a software tool to automatize the wind tunnel testing and data analysis of morphing drones. He worked on all aspects of the solution, including:

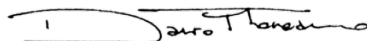
- Interfacing of a robotic arm, wind tunnel and loadcell using their Python API ;
- Designing and quick-prototyping mechanical mounts for the drones ;
- Defining the characterization procedure ;
- Implementing a Graphical User Interface ;
- Implementing an automated data processing pipeline which enabled to extract the center of mass, vibration analysis and aerodynamic model of drones.

Leonardo accomplished all the goals set at the beginning of the project and provided a tool, developed in Python, that will be used for characterizing drones in the future.

He had a very systematic approach and showed great initiative and dedication. He was highly autonomous and provided several solutions each time he encountered a problem. He demonstrated a deep understanding of aerodynamics phenomena which was crucial to provide a meaningful characterization methodology and develop the software.

I highly recommend Leonardo to any future employer and I wish him great success for his next endeavors.

Sincerely,



Prof. Dario Floreano