BASSEM DAHROUG

PhD, Mechatronics Engineer

https://bdahroug.github.io/

@ bdahroug@gmx.com

▼ Toulouse, France

Experienced robotics and mechatronics engineer with a PhD in Engineering Sciences and over nine years of hands-on experience in space robotics, surgical robotics, and advanced control systems. Passionate about developing autonomous systems and digital twins for challenging environments. A full version of my CV is available on the website ¹.

EXPERIENCE

Robotics Engineer - Control & Mechatronics

ROVIAL Space

i 03/2023 - 06/2025

▼ Toulouse, France

Participate in the research and development of robotic systems for on-orbit servicing applications

- design and develop mechatronic systems by using different robotic structures (e.g., manipulator arm, legged robot) for performing assembly and repair tasks;
- develop a low-level and high-level controllers for guiding the robotic system by computing forward and inverse kinematics, as well as dynamics ones;
- create experimental proof-of-concept to validate the developed robotic system;
- collaborates with other departments, such as Structure and Space, to gather requirements and specifications.

Mechatronics Engineer

AMAROB Technologies

i 06/2021 - 11/2022

Besançon, France

Participation in different innovative projects

- design, simulation, manufacturing, and programming of mechatronic devices, in particular, the micro-robotic systems dedicated to intracorporeal laser surgery that AMAROB proposes;
- validation of the devices developed with AMAROB's collaborators, including partner hospitals and AMAROB's customers.

EDUCATION

Ph.D. in Engineering Sciences

UBFC (Université Bourgange Franche-Comté)

11/2014 - 02/2018

■ Besançon, France

Dissertation: Minimally Invasive Surgery in the Middle Ear: a guided micro-robotic system to efficiently remove cholesteatoma.

Joint M.Sc. in Mechatronics and Micro-Mechatronics Systems

ENSMM (Ecole National Supérieur de Mécanique et des Microtechnique) and EPI (Escuela Politécnica de Ingeniería de Gíjon)

= 09/2012 - 09/2014

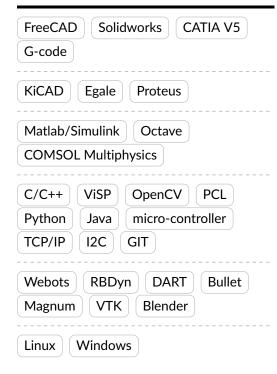
Besançon, France and Gíjon, Spain

Master thesis: Design, modelling and control of a contactless modular conveyor.

SKILLS & KNOW-HOW

| Mechatronic design Robotics Automatic control Scientific programming Mechanics Electronics | |
|--|--|
| Robotic experimentation Organization, rigor and autonomy Analysis, synthesis and solving problems Oral and writing communication Project Collaboration | |

COMPUTER SKILLS



LANGUAGES

| English | French |
|---------|---------|
| | |
| Arabic | Spanish |

¹Long CV: https://bdahroug.github.io/assets/DAHROUG_longCV.pdf