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 with ten 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

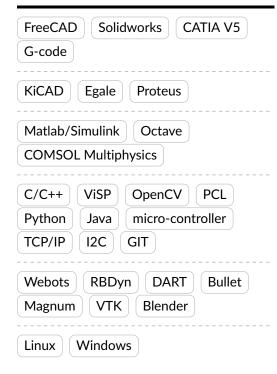
Besançon, France and Gíjon, Spain

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