## **BASSEM DAHROUG**

## PhD, Mechatronics Engineer

https://bdahroug.github.io/

@ bdahroug@gmx.com

▼ Toulouse, France

## **EXPERIENCE**

## Robotics Engineer - Control & Mechatronics

## **ROVIAL Space**

**1** 03/2023 - present

● Toulouse, France

Participate in the research and development of innovative robotic solutions for space 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)

**i** 09/2012 - 09/2014

Besançon, France and Gíjon, Spain

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

## B.Sc. in Mechanical Engineering

AAST, College of Engineering Studies and Technology, Mechantronics Depart.

**i** 09/2011 - 09/2006

Alexandria, Egypt

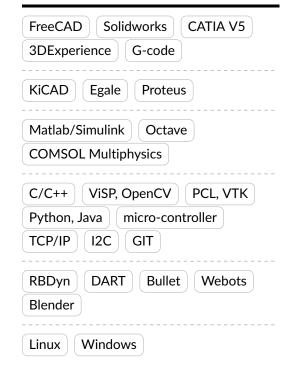
Graduation project: Mobile robot control for parking manoeuvre.

## **SKILLS & KNOW-HOW**

Mechatronic design
Robotics
Automatic control
Scientific programming
Mechanics
Electronics

Robotic experimentation
Analysis, synthesis and solving problems
Oral and writing communication
Organization, rigor and autonomy
Project Collaboration

## COMPUTER SKILLS



## **LANGUAGES**

English	French
Arabic	Spanish