

# TRISTAN MULLER

22 years old, Student in Embedded Electronics Engineering

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github.com/101Robotics    French Driving Licence    France  
Find more about my projects on tm.101robotics.com



## EXPERIENCES

Intern | Development of low-cost and open-source educational lab models    **University of Franche-Comté**

May - July 2021    Besançon, France

Finalization of a lab demonstration model showing the use of EtherCAT in the case of a supervision system (temperature control using Raspberry Pi and Arduino). Explored the possibilities of integrating open source and low-cost hardware in the design of future robotics and automation lab models and designed proofs of concept.

Intern | Prototyping a connected hive (IOT)    **Manipulse**

April - May 2020    Strasbourg, France

Prototyping of a connected apiary with 3 hives using the LoRa network to send sensor data and receive orders from the beekeeper's app. 7 weeks internship working remotely.

Intern | Supervision system    **Mars PF France**

June - July 2018    Ernolsheim, France

8-week internship in the Automation and Industrial IT department entitled: Data exchange between a dynamic weighing system and a supervision system (InTouch).

Summer Job | Development of automatic systems integrated into the puzzles    **Dooz Escape Game**

August - September 2017    Strasbourg, France

Design and realization of the electronic part (sensors and actuators) and computer part (Arduinos and Raspberry Pis programming) of various automata integrated into the enigmas for a Live Escape Game.

Technical Writer    **Robot-Maker.com**

2016-2018

Wrote an ebook in French for beginners in electronics and Arduino board programming (in collaboration with an engineer). The first two chapters are written and published on Robot-Maker.com.

## PROJECTS

5 participation Hacking Health events

2017-2020    Besançon and Strasbourg, France

- Description**  
48-hour event to bring together project leaders and participants wishing to use their skills to help a health-related project.
- 2017 Edition: Electronics and 3D Printing Coach**
- 2018 Edition: Prototyping an electric wheelchair assistance kit**
- 2019 Edition: Worked on solutions to give Alzheimer's patients back their independence.** (Hardware used : ESP32, GPS module)
- 2020 Edition: Compact and connected defibrillator project.** I focused on the pulse measurement and the transmission of the data to the user's phone. (Hardware used : NRF51)
- Hacking Covid19 Edition :** Creation of a local network for the distribution of 3D printed anti-projection visors (face shields) for health professionals.

## EDUCATION

Embedded Electronics MSc

**University of Franche Comté, Besançon, France**

Since September 2020

Currently in the second year of an MSc with a specialization in Embedded Electronics and Instrumentation.

Electronic Engineering BSc

**University of Franche Comté, Besançon, France**

2017-2020

With a specialization in Electronics and Control Engineering.

Ultra-Light Pilot Theory Exam

**FFPLUM**

September 2015

Completed my theoretical examination by the French Federation of Ultra-Light Motorized Aircraft my theoretical examination.

## SKILLS

Electronics    Arduino    Raspberry Pi  
PCB design and soldering    Bluetooth  
IT skills    Office Suit    LaTeX  
Windows    Linux    C/C++    Python  
Rapid Prototyping    Laser cutting  
3D Printing (FDM/SLA)

## LANGUAGES

French (mother tongue) ●●●●●

English (TOEIC L&R : 985/990) ●●●●●

## HOBBIES

**Aeronautics**  
Since 2012

**Volleyball**  
Since 2014

**Robotics**  
Since 2014