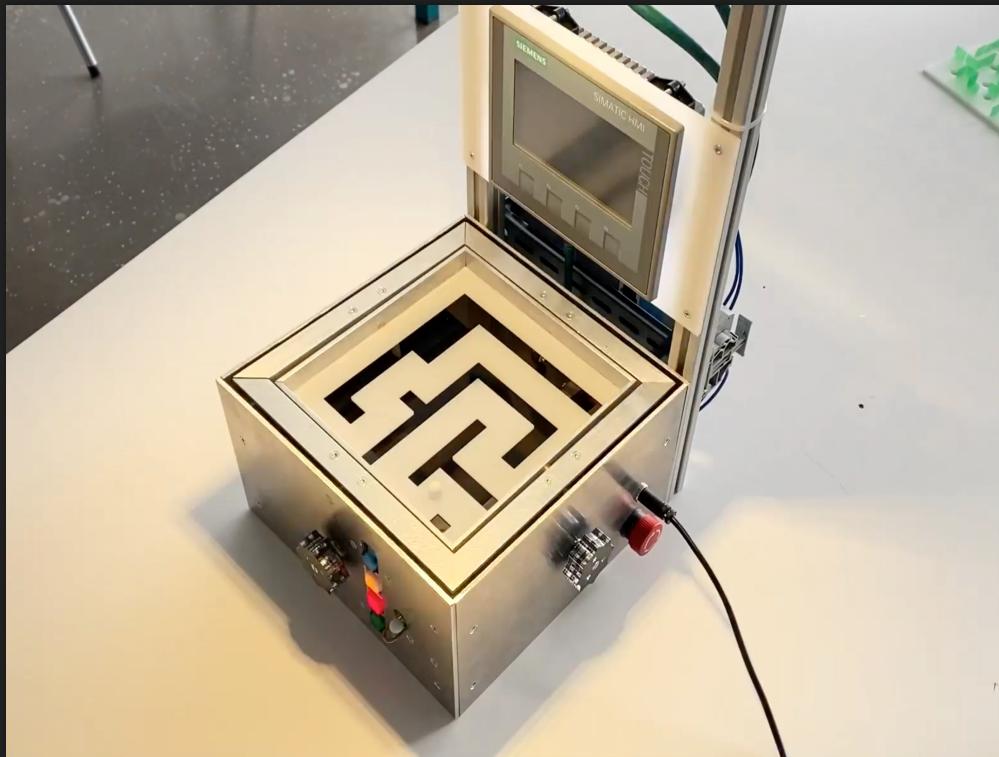


# My Creations

Gilles Butikofer - 2025

# Automated Ball Maze



2021

- Best automation project award
- Skills developed :
  - Desing with Autodesk Inventor (CAD)
  - Electrical Diagram
  - Turning / Milling / Laser Cutting
  - Machining / Assembling / Wiring
  - Using an Cognex Industrial Camera
  - Using a Siemens SIMATIC S7-1200 Controller
  - Programming with TIA Portal

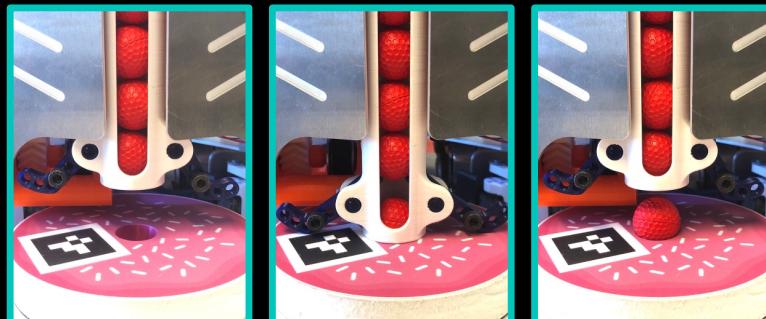
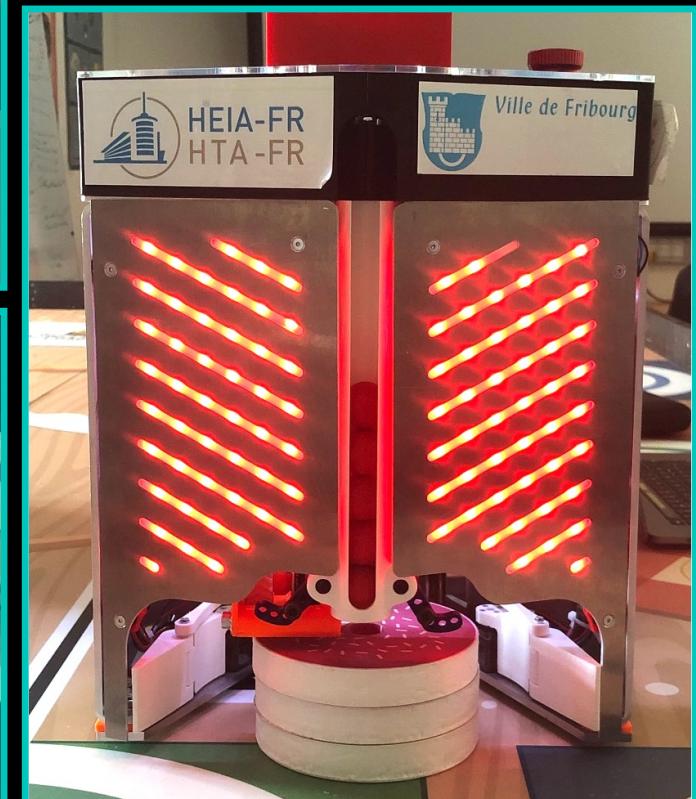
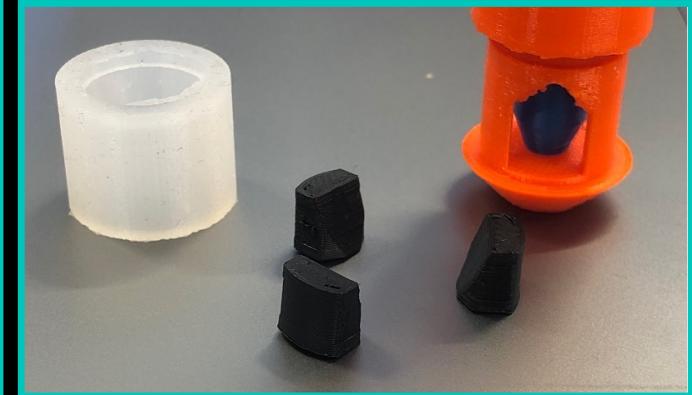
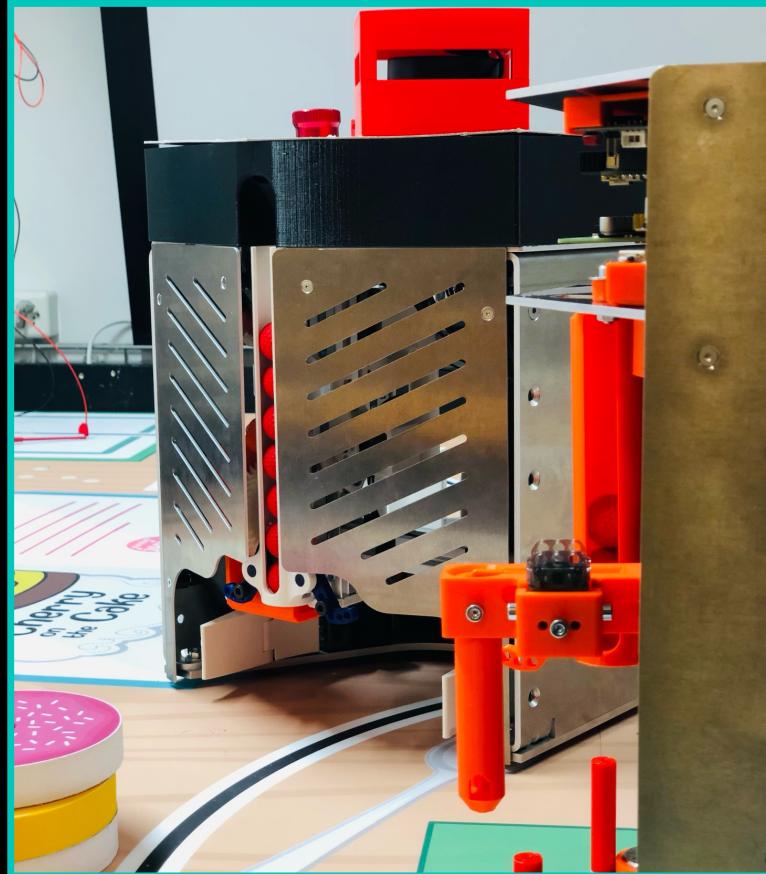
# Eurobot 2023

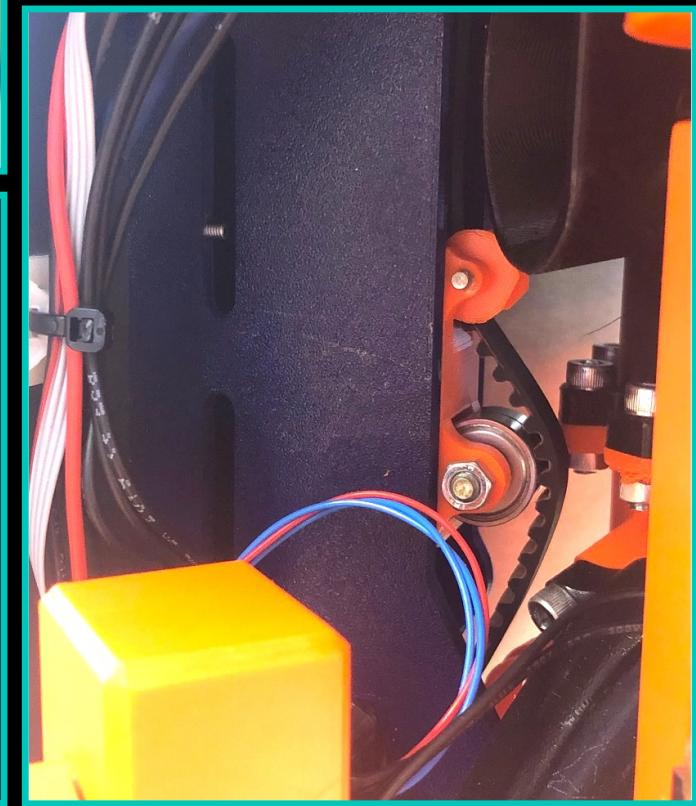
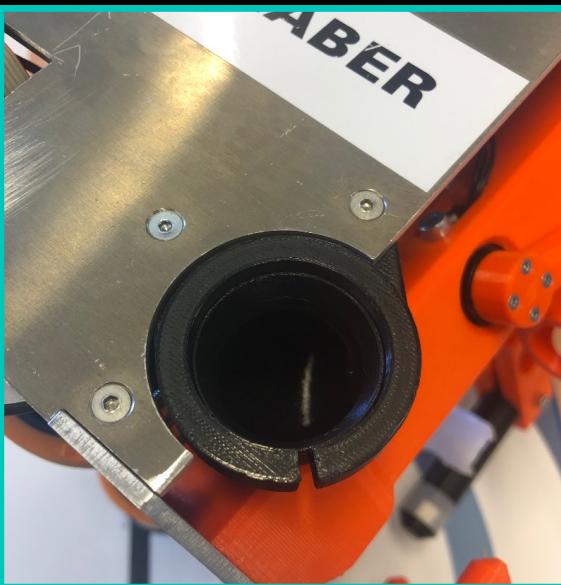


2022-2023

- Skills developed :
  - Interdisciplinary Teamwork
  - Deadlines Management
  - CAD Design with Siemens NX
  - Developing Reliable Mechanisms
  - Designing for 3D Printing & Laser Cutting
  - Assembling
  - Programming in Python







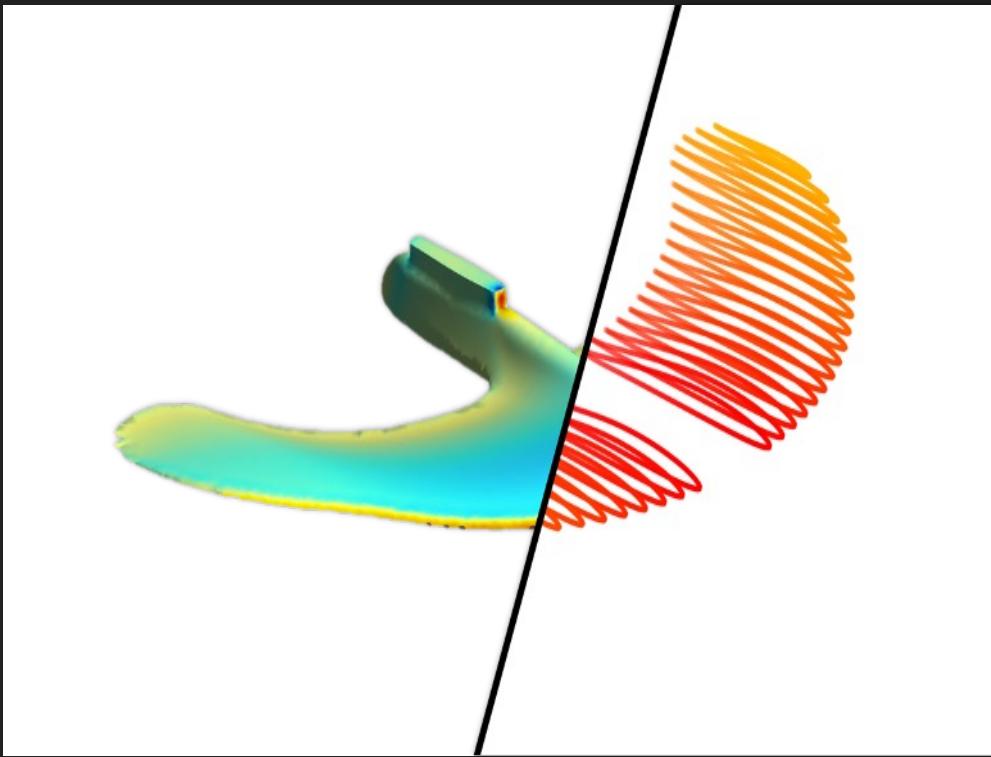
# Dragon Themed Piggy Bank for Fribourg Gotteron

2023



- Skills developed :
  - Unsolicited solo project
  - Adapting a Free 3D Model
  - Design for 3D Printing
  - Electronic schematic & selecting components
  - Assembling / Wiring

# Simulating Drag and Lift of a Hydrofoil in Python



2023

- Skills developed :
  - Programming in Python
  - Calling an External Program XFOIL from python
  - Solo project
  - Writing a technical report

# Water Cooling Setup for the CYGNUS 40L, a Neutrino and Dark Matter Detector

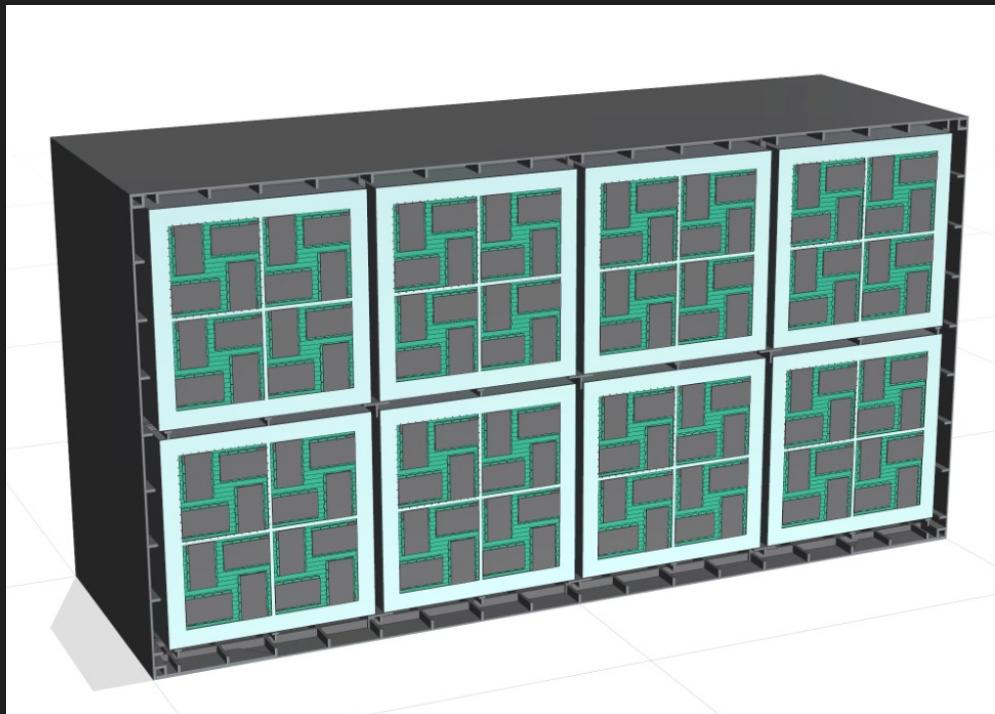


2024

- Bachelor thesis : Alumni Award
- Skills developed :
  - Thermal Simulations in Ansys Fluent 2023
  - Multitasking
  - Writing a Technical Report in English
  - Interdisciplinary teamwork

# Design Proposal for a Future 12m<sup>3</sup> Neutrinos and Dark Matter Detector

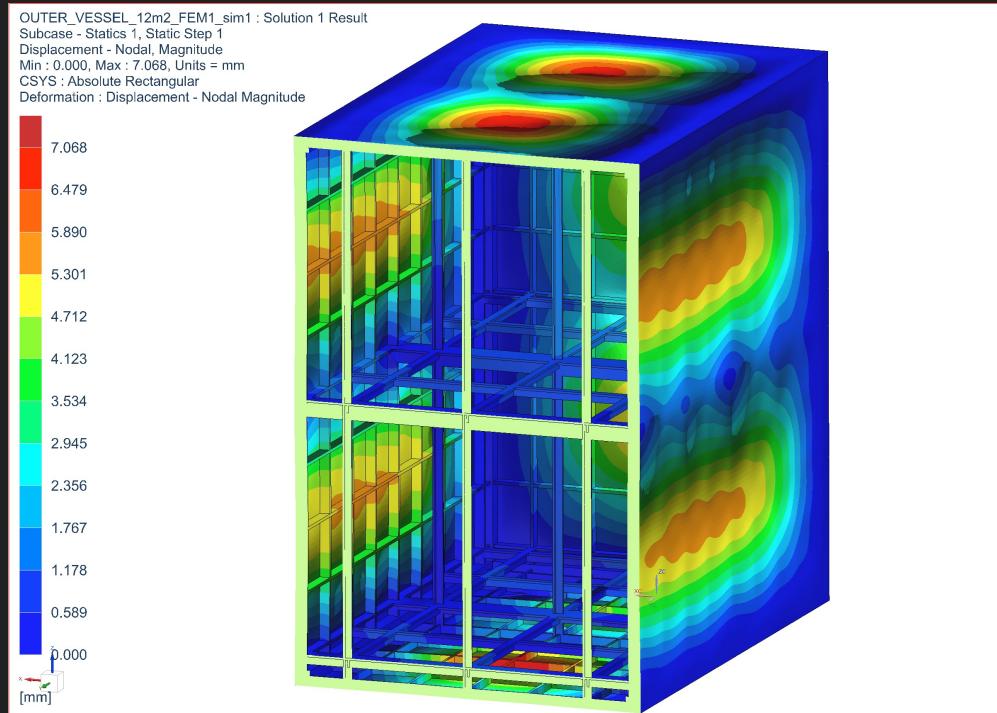
2024



- Skills developed :
  - CAD Design with Siemens NX
  - FEM Simulation with Nastran solver
  - Teamwork

# Design Proposal for a Future 12m<sup>3</sup> Neutrinos and Dark Matter Detector

2024



- Skills developed :
  - CAD Design with Siemens NX
  - FEM Simulation with Nastran solver
  - Teamwork

# Family project, building a house

2024-2025



- Skills developed :
  - Team management
  - Planning management
  - Outdoor manual work
  - Earthen wall construction

# Pizza oven



2025

- Skills developed :
  - Solo personal project
  - Material Planning / ordering
  - Learning from literature
  - Outdoor manual work

To be continued ...



*joe marino/imago*