Mechanical Engineering Intern

Robotic Service Cell · Summer 2027 Internship · AUX-INT-SD-01

Reference	AUX-INT-SD-01	**Program**	Paid summer internship for university students in the UAE: 16 weeks from early May 2027
Mentor	Mechatronics Design Engineer (AUX-ENG-SD-02); oversight by Dr. Mamdouh Yanni	**Location**	Hybrid, Dubai: weekly in-person mentor sessions; other work remote
Schedule	Full time, up to 40 hours a week, set to meet your university's credit requirements	**Stipend**	Paid monthly; amount set in the training agreement
Who can apply	Mechanical or Mechatronics Engineering. Students eligible for their university's credit-bearing internship (senior standing, as the university defines it).		

About Auxionetics

Auxionetics Artificial Intelligence L.L.C S.O.C is an IP-led robotics company in Dubai. Our patent-pending technology aims to let people and robots work safely side by side, and its first use will be the Smart Robot Mechanic: a car-service bay in which two collaborative arms will take on the repetitive, physically demanding work while a skilled technician stays in charge of every job. Six US patent applications and an international (PCT) application have been filed. We will run our own workshops in Dubai and license our Human-Robot Collaboration platform once it runs reliably in daily operation.

Why this internship matters

The first Smart Robot Mechanic bay will be built during your internship, and every fixture, tool holder and guard in it must fit a wide range of vehicles and meet ISO 10218-1/-2:2025. You will turn the cell concept into the layouts, analyses and safety documents the build team works from.

Your project

- **Cell layout.** Develop CAD layouts of a two-arm service cell around passenger vehicles from compact cars to large SUVs.
- **Reach and workspace.** Run reach and workspace studies for candidate collaborative arms, and write a short, evidence-based trade-off report.
- **Fixtures and guarding.** Draft fixtures, tool holders and guarding, with first-pass load, deflection and tolerance calculations.
- **Risk assessment.** Prepare a structured risk assessment that maps the requirements of ISO 12100 and ISO 10218-2:2025 to the cell, for review by the safety engineer.
- **Field data.** Where access allows, run a time-and-motion study of oil and tire service at Dubai workshops to set cycle-time targets.

Minimum qualifications

- Studying for a bachelor's degree in Mechanical or Mechatronics Engineering.
- 3D CAD (SolidWorks, CATIA, NX or Fusion 360) and engineering drawings to recognized standards.
- Sound grounding in statics, dynamics, mechanics of materials and robot kinematics.

- Clear written English, and the discipline to deliver independently between sessions.

Preferred qualifications

- Experience with robot arms, a robotics or Formula Student team, or a mechatronics capstone project.
- GD&T, finite element analysis, or MATLAB or Python for engineering calculations; an interest in machine safety.

Your 16 weeks

Weeks	What success looks like
1–2	Safety induction complete; project plan, targets and vehicle range agreed with your mentor.
3–8	Cell layout and reach study complete; trade-off report reviewed; fixture concepts drafted.
9–14	Fixture and guarding calculations checked; risk assessment reviewed; field data collected.
15–16	Final report, drawing set and presentation delivered; handover to the build team.

How we work

- **Safety first.** No intern operates robotic equipment without supervision and a documented safety induction; all work near the cell follows its risk assessment.
- **Measured, not claimed.** Set targets with your mentor, measure them, and report what you find, including what did not work.
- **Written and reviewed.** Weekly one-to-one reviews, short written notes, and every deliverable reviewed before use.

What you will gain

- **Real ownership.** A defined project whose results will feed directly into the first robotic service bay.
- **Mentoring.** Weekly one-to-one time with a founding-team member, and oversight from a founder with almost 30 years in engineering, including 12 in Silicon Valley.
- **Academic credit.** A final report and presentation prepared to support your university's assessment, and a reference letter on successful completion.
- **A route in.** Strong interns will be considered first for graduate roles as our team grows.

Conditions. A written training agreement (training areas, duration, hours and stipend); a student training permit from the Ministry of Human Resources and Emiratisation (MoHRE) and a no-objection letter from your university; the candidate and intern confidentiality agreement, and an assignment of intellectual property created during the internship. Interns never pay any fee. Each internship opens only if our Seed round has closed and its mentor has been in post for two months by May 2027; we will confirm by 31 January 2027.

> **How to apply.** Email your CV, transcript and links to CAD or project work to careers@auxionetics.com, quoting AUX-INT-SD-01 in the subject line. Shortlisted candidates will meet Dr. Mamdouh Yanni, with the mentor where in post, for a 45-minute interview in February or March 2027. CVs are used only for recruitment and deleted within 12 months unless the candidate joins us. **Auxionetics is an equal-opportunity employer** and selects on merit alone.