



Offer #2024-07529

Robotics engineer for service robotics experiments in real life scenarios

Contract type : Fixed-term contract

Level of qualifications required : Graduate degree or equivalent

Fonction : Temporary scientific engineer

Context

The position is funded by the PEPR 02R, a national French program to advance research in robotics which reunites several French laboratories in robotics, AI, and Social and Human Sciences.

In this context, the LARSEN team in INRIA is leading the project AS3, with the challenge to carry out longitudinal (i.e., several months) experiments of service robotics in real-life scenarios.

The first experiments will be carried out at the INRIA premises, in the laboratory environment, where a mobile manipulator (a TIAGO++ robot) will be used to deliver mail and other items in offices, assist and serve people in the cafeteria, and in general interact with visitors and personnel of the laboratory. Later, the experiments will take place in a hospital environment.

The position is open for 2 years but can be extended for 2 more years.

The team is international - English and French speaking. French is not required, although free French classes are available in the institute for non-French speakers.

The laboratory is located in the Science and Technology Campus of the University of Lorraine, next to the Botanical Gardens, at 20 minutes by public transportation or bike from the Nancy train station and City Center.

Nancy is a University town, with a high quality of life and a vibrant student and expat community.

Assignment

The engineer will be responsible for the robotic platform used in the project, making sure the contributions from all the partners are integrated at the software level on the robot. He will also supervise all the experiments, making sure the platform behaves safely in the real environment.

To this end, an important objective will be to develop a suitable teleoperation interface station that enables the engineer to supervise the robot, which will have a variable level of autonomy: the engineer will have to teleoperate the robot during its tasks in case of issues and unpredictable situations (or, according to an experimental protocol that will be decided with the scientific team). The engineer will have to develop the software running on the robot, mostly improving on the existing software that is used and developed by the team for navigation, control, and manipulation. Running the experiments in the lab will require potentially deploying environmental sensors and handling network issues (changes in the network, delays, etc.)

All the development will be in ROS/ROS2.

Main activities

- Write code to perform experiments with robots
- Write software documentation
- Write an annual activity report
- Conduct experiments in the real environment, with real robots: Tiago++
- Participate to national (PEPR) and European projects events (meetings, hackathons) when appropriate

Skills

- Experience with machine learning, vision, or real robots is necessary.
- Familiarity with robotic platforms (e.g., ROS/ROS2, Gazebo), sensors, cameras, and hardware.
- Proficiency in programming languages such as C/C++ and/or Python is required.
- Ability to work independently and as part of a team.
- Good communication and writing skills in English.

Benefits package

- Subsidized meals
- Partial reimbursement of public transport costs
- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours) + possibility of exceptional leave (sick children, moving home, etc.)
- Possibility of teleworking (after 6 months of employment) and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

Remuneration

Remuneration will be determined according to degree and years of experience, from €2692.00 gross per month.

General Information

- **Theme/Domain** : Robotics and Smart environments
Software engineering (BAP E)
- **Town/city** : Villers lès Nancy
- **Inria Center** : [Centre Inria de l'Université de Lorraine](#)
- **Starting date** : 2024-09-02
- **Duration of contract** : 2 years
- **Deadline to apply** : 2024-05-12

Contacts

- **Inria Team** : [LARSEN](#)
- **Recruiter** :
ivaldi Serena / serena.ivaldi@inria.fr

About Inria

Inria is the French national research institute dedicated to digital science and technology. It employs 2,600 people. Its 200 agile project teams, generally run jointly with academic partners, include more than 3,500 scientists and engineers working to meet the challenges of digital technology, often at the interface with other disciplines. The Institute also employs numerous talents in over forty different professions. 900 research support staff contribute to the preparation and development of scientific and entrepreneurial projects that have a worldwide impact.

The keys to success

Master's degree (or equivalent) in Robotics, AI, Computer Science, or a related field.

Very good programming skills.

Love working with real robots.

Not afraid of challenging projects.

Warning : you must enter your e-mail address in order to save your application to Inria. Applications must be submitted online on the Inria website. Processing of applications sent from other channels is not guaranteed.

Instruction to apply

Defence Security :

This position is likely to be situated in a restricted area (ZRR), as defined in Decree No. 2011-1425 relating to the protection of national scientific and technical potential (PPST). Authorisation to enter an area is granted by the director of the unit, following a favourable Ministerial decision, as defined in the decree of 3 July 2012 relating to the PPST. An unfavourable Ministerial decision in respect of a position situated in a ZRR would result in the cancellation of the appointment.

Recruitment Policy :

As part of its diversity policy, all Inria positions are accessible to people with disabilities.