



GNSS-CRPA System Design and Development Engineer

Permanent position based in Toulouse

Syntony GNSS is a human-sized company with an international dimension, based in Toulouse and with the **FrenchTech label**, specializing in **Global Navigation Satellite Systems (GNSS)**.

Our ambition: To provide our customers with relevant, innovative, reliable and robust solutions.

World leaders in radio navigation and embedded systems, we are present in fast-growing markets, such as aeronautics, space, road and rail transport, mining and IoT (Internet of Things). We have developed a range of products (simulators, receivers, indoor/outdoor location systems) that meet the growing needs of these industries.

Keysight, Airbus, Airbus Constellation, Hitachi Rail, Thales Alenia Space, Honeywell, Rockwell, MDA, or the Stockholm, New York and Toronto metros... So many partners who trust us and push us to always go further.

With passion, we constantly evolve our solutions to anticipate their needs and perfect our know-how.

At Syntony, we offer a pleasant and stimulating work environment, where the quality of life at work and the availability of our employees promote fulfillment and collaboration. Intellectual stimulation is omnipresent through innovative and varied projects.

We work on a variety of subjects, ranging from aeronautics to space, transport, mining and the environment.

Thus, Syntony vibrates around three fundamental values:

Benevolence:

Together, we cultivate listening, respect, and empathy in our interactions, while also valuing the multiculturalism that enriches our exchanges.

We contribute to a positive environment where everyone feels valued and supported. We enrich each other by building strong relationships, both internally and externally.

Excellence:

Together, we strive for excellence in everything we do. Through our commitment, our high standards and our sense of responsibility, we guarantee quality, efficiency and performance. It is through our collective rigor that we meet challenges and provide sustainable solutions.

Adaptability:

Together, we are flexible in the face of the changes around us.

By combining creativity, collaboration and resilience, we find innovative solutions and move forward efficiently. Our agility allows us to evolve in line with our environment.

From students to professionals qualified, help develop future navigation solutions in partnership with our team of experts. Evolve in a caring environment where your ideas take flight and your contributions strengthen the synergy of the company.

Internationally, we meet the challenges of today and tomorrow, supporting our customers throughout the entire process: from the initial vision to development, to delivery and the collection of their satisfaction.

The Context

Test and Measurement products (Simulation, Recording/Replay) and GNSS receivers are experiencing an acceleration in their development. Syntony GNSS recently formed a partnership with a leading manufacturer of RF test solutions, [Keysight Technologies](#). The European Space Agency (ESA) has selected Syntony to provide user demonstration receivers for the [LEO-PNT project](#). As a member of the consortium led by Thales Alenia Space, Syntony will play a key role in advancing global navigation technologies.

What you'll accomplish with Syntony GNSS

You will join the GNSS Study and Innovation department to develop innovative solutions for the various SYNTONY product ranges for the rail, space or aeronautics sector requiring high-level performance for demanding environments.

Within the GNSS Study and Innovation department, you will be in charge of contributing to the execution of all or part of the activities of the system approach aimed at building and delivering a solution satisfying the stakeholders in the context of a customer case or the product roadmap.

You will participate in and support innovative technical solutions from the study and design phase, to their validation and deployment.

Your first missions within SYNTONY will be carried out as part of the development and improvement of receiver products and Test and Measurement equipment using **CRPA** antennas for the fight against intentional and unintentional interference and thus improve the robustness and integrity of GNSS-based positioning systems.

The missions that will be entrusted to you

- Meet the requirements of the solution at the required level (compliance, traceability, verification)
- Analyze the requirements and constraints that the solution must meet
- Participate in the formalization of the specifications necessary for the development of the solution
- Define a test plan for the development validation strategy
- Perform tests and analyze results to validate specified requirements
- Contribute to the maintenance and operation of internal testing, measurement and validation tools (after internal training on these tools)
- Continuous update of the solution's output data collection tools
- Contribute to the evolution and exploitation of CRPA algorithms applied to GNSS (after internal training in these technologies)
- Carry out the necessary modeling studies for the development of the solution
- Contribute to the technological watch in a continuous improvement approach

The technical skills we are looking for

- Knowledge of GNSS (RF, Signal Processing, etc.)
- Knowledge of CRPA techniques and antenna processing (Beamforming, NullSteering, ...)
- Experience with business modeling languages (Matlab)
- Possible experience in programming languages (C/C++, Python, ...)
- Experience with testing, validation and calibration processes and tools (GNSS signal generators, GNSS and CRPA receivers, spectrum analyzer)
- Good command of system analysis, evaluation, optimization and modeling techniques.



About you

With a Bac+5 degree in signal processing or telecommunications, you have a strong appetite for technological challenges and have at least 3 years' experience in the study and development of systems or subsystems in similar fields (GNSS, Radar, Digital Communication). You want to work in an international environment and have a good command of English. Your open-mindedness, your taste for teamwork and your creativity will be the assets necessary for the success of your missions.

Ready to embark with us to shape the future of sailing? 🚀 ✨ Send us your CV under the reference ENG-638-EN to jobs@syntony.fr

Or apply directly from [the career page of our website](#).

See you soon at **Syntony GNSS** !