Vacancies

HARDWARE

Lead Hardware Engineer
Mechanical Engineer
(Embedded) Electrical Engineer
Test Engineer
Design Engineer
Aerodynamics Engineer
Vacancies

Lead Hardware Engineer

**Position**

Full-time, Hardware

**Your Job**

As the lead of a subteam you are responsible for the output of your subteam. This means you work closely together with management to plan the project as well as with other leads. You show and explain your results to the rest of the team and ensure communication between your subteam and other subteams. You keep an overview of all the different drones being built and make sure that your engineers are well-supported in their work.

As the hardware team you will research and develop different kinds of drones: singlecopters, coax-copters and quadcopters. By iterating, modelling and simulating, you optimize efficiency, weight and noise of the drones. The hardware team has access to Siemens software such as NX, STAR CCM+ and HEEDS to design, model and simulate.

Furthermore you will make sure the drones fly.

**Profile**

You are the one that always takes the lead in your project groups and loves doing it. You like to collaborate and you want to bring out the best in people. You take responsibility and initiative, and you are not afraid to make critical decisions. You have a strong interest in robotics and drones, and you want to get to know every detail of the drones.

**Asked**

Required

- Basic electrical and mechanical knowledge

Nice to have/be

- Affinity with drones
- Communication and Organisational skills
- Flying skills
- No 9 to 5 mentality
- Stress resistant

**Offered**

You will have a great opportunity to learn a lot about drones by working together with partner companies such as NXP, Refitech and Cards3dPrinting. You will have the chance to work with new advanced technologies from these partners and will develop unique skills by working with state of the art soft- and hardware. Furthermore you will improve your leading and organisational capabilities. Last but not least: learn how do fly a drone!
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Mechanical Engineer

Position
Full-time or Part-time, Hardware

Your Job
As a mechanical engineer, you model, design and build the frame of the drones. You optimize the frame by rapid prototyping so you can learn fast and have your perfect design finished in no time.

In addition, possible other research topics are:
- flow models;
- strong and light materials;
- noise minimalization;
- gripping mechanisms.

As a part of the hardware team, you will research and develop different kinds of drones: singlecopters, coax-copters and quadcopters. By iterating, modelling and simulating, you optimize efficiency, weight and noise of the drones. The hardware team has access to Siemens software such as NX, STAR CCM+ and HEEDS to design, model and simulate.

Profile
You have a strong interest in robotics and drones, and you want to completely optimise your drone. You are a creative person that thinks outside the box to develop an innovative drone. Furthermore, material research and modelling are in your field of interest.

Asked
Required
- Basic mechanical knowledge

Nice to have/be
- Affinity with drones
- Modelling skills
- Material knowledge
- 3D printing experience

Offered
You will have a great opportunity to learn a lot about drones by working together with partner companies such as NXP, Refitech and Cards3dPrinting. You will have the chance to work with new advanced technologies from these partners and will develop unique skills by working with state of the art soft- and hardware.
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(Embedded) Electrical Engineer

Position

Full-time or Part-time, Hardware

Your Job

As electrical engineer, you will essentially make your drones fly. You will search for the best components, e.g. motors, ESC’s, batteries and flight controllers, to increase the flight time of the drone. You will dive deep into different flight controllers to understand every influence it has on the flight dynamics. Furthermore you have the chance to get experience in designing your own PCB with software provided by Siemens and/or Altium.

As a part of the hardware team you will research and develop different kinds of drones: singlecopters, coax-copters and quadcopters.

Profile

As an electrical engineer, you get excited about cable management, sensors and avionics. You have a strong interest in robotics and drones and are eager to learn about all the types of electronics incorporated in drones. You are dedicated to understand all the ins and outs of the electronics you will be working with. Examples are: Pixhawk, NXPhlight, Sonars, lidar, Raspberry Pi and an NVIDIA Jetson TX2.

Asked

Required

- Basic electrical engineering knowledge
- Eager to learn and willing to put in work

Nice to have/be

- Experience in robotics
- Basic embedded software experience
- Affinity with avionics

Offered

You will have a great opportunity to learn a lot about drones by working together with partner companies such as NXP, Refitech and Cards3dPrinting. You will have the chance to work with new advanced technologies from these partners and will develop unique skills by working with state of the art soft- and hardware.
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Test Engineer

Position

Full-time or Part-time, Hardware/Software

Your Job

As a test engineer, you will test and evaluate different components and combinations of components, as well as fully functioning drones. You will setup test plans, and execute these tests. You will fix minor problems that you come across during the tests, and you will report these back to the related sub-teams. This puts you in a key position in the team, because you are the one in charge when problems occur (as you probably have experience with these problems from testing). You will work on the interface between hardware and software.

Profile

You want to be in a central position within a team, where you have broad knowledge of all components and their functioning. You like to communicate to people and explain how the components work, but you can also listen to your colleagues to determine what should be tested. Besides, you are also comfortable working individually and independently. You have excellent problem solving skills and you like to find “the needle in the haystack”.

Required

- Basic electrical and mechanical engineering knowledge
- Basic software engineering knowledge
- Problem solving skills
- Communication skills

Nice to have/be

- Affinity/Experience with drones
- Experience with testing methods

Offered

You will have a great opportunity to gain a lot of broad knowledge on everything that has to do with robotics, software and hardware. You will have the chance to work with new advanced technologies from our partners and will develop unique skills by working with their state of the art soft- and hardware.
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Design Engineer

**Position**

Full-time or Part-time, Hardware

**Your Job**

As a design engineer, you are responsible for the aesthetics of the drones that we make, as well as the design of the inner parts of the drone. You use 3D modelling to design the frames and you make 3D models of different parts of the drone that you then 3D print. You will work closely together with mechanical engineers in this procedure.

As a part of the hardware team, you will research and develop different kinds of drones: singlecopters, coax-copters and quadcopters. By iterating, modelling and simulating, you optimize the framework and structure of the drones. The hardware team has access to Siemens software such as NX, STAR CCM+ and HEEDS to design, model and simulate.

**Profile**

You are creative and you like to express that creativity in a variety of designs. You think out-of-the-box and you come up with new, unconventional designs. You can visualize a design and convert this to actual drawings.

**Asked**

Required

- Basic mechanical engineering knowledge
- Experience in 3D modelling

**Offered**

You will have a great opportunity to actually produce the designs that you come up with. You will have the chance to use new advanced technologies from our partners to realize your drawings, such as the 3D printers from Cards3D and water jetting from Refitech. You can really apply your creativity in a way that you think is suitable for the Blue Jay drones.
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Aerodynamics Engineer

**Position**

Full-time or Part-time, Hardware

**Your Job**

As an aerodynamics engineer, you analyze and optimize the airflow from different designs of the drones that we develop: singlecopters, coax-copters and quadcopters. You will work closely together with the other team members from the hardware sub-team to design and produce drones with optimal airflow.

You will perform multiphysics simulations, using Siemens software such as STAR CCM+ and HEEDS. You also have access to the wind tunnel for tests and analysis.

**Profile**

You are interested in physics and you like to apply your knowledge to a tangible project. You can perform research individually and you can clearly communicate your findings to others. You can also convert your research results into actual recommendations and modifications to the drone designs.

**Asked**

Required

- Basic knowledge about aerodynamics
- Experience in research and simulations

Nice to have/be

- Affinity/Experience with drones
- Communication skills

**Offered**

You will have a great opportunity to gain a lot knowledge about aerodynamics and air flow. You will get the resources to perform your study, so you will have the chance to work with new advanced technologies from our partners, such as a large software package from Siemens, and a wind tunnel.