Are you the enthusiastic, talented graduate(s) electronics engineering we're looking for?

You will be joining the Innovation Team Oral HealthCare R&D department at Philips Drachten. An impactful multi-disciplinary team of experienced and passionate professionals, that works with internal and external teams from all over the globe. You get the opportunity to work on an innovative method and device for consumer's mouth health detection and its improvement.

Description of assignment

Develop a demonstrator for a toothbrush that is capable to drive the motor by various signals. By means of an easy user interface (e.g. on a PC), the driving method needs to be selected to enable a one-to-one compare method. Investigate the effect on efficiency, sound, stability and other parameters. Defining the parameters to investigate is part of the assignment.

Main subjects of the assignment:

- Create an overview driving methods including current state.
- Define improvements direction like efficiency, sound level, etc.
- Make a flexible strategy which enables to demonstrate various driving methods by changing setting.
- Design and build development board for driving a motor which is built in a product.
- Perform measurements on driving methods and verify with theoretical analysis.
- Evaluate reasonable options and select the best option for a prototype.
- Design and build protypes for testing the selected driving method in a full toothbrush.
- Define design requirements, specifications and constraints for the product.
- Verify the concept in a simplified consumer research study.
- Those designs will require the application of e.g.:
    - Power conversion, inverters, amplifiers, electronics, micro controllers, memory, programmable logic devices, embedded software, PC software (e.g. C#, Python).

The exact assignment(s) can be further discussed and defined by the students themselves in collaboration with our team. You are in the lead!

We are looking for:

A master/bachelor graduation student who is pursuing electronic engineering or associated engineering who will work on the project for at least 5 months.

To succeed in this role, you have the following skills and experience:

- Affinity with the electronics, software and consumer field.
- Affinity with sound development
- Professional skills in English (written and verbal).
- Team player, passionate about results and people.
- Hands-on mentality and result driven.
- Likes to do research, execute experiments and make prototypes.
- A solid background in the above-mentioned subjects.
- Students open to learn a lot of new competences, like technical subjects, research, development, consumer research, international cooperation in a large-scale company etc.
- Able to work mainly on site (Drachten) for at least 3-4 days per week.

You will be part of:

In Drachten you'll find one of the largest innovation sites of Philips globally. With over 2000 colleagues from over 35 different nationalities, it's an inspiring environment for you as a young talented intern. At Philips Drachten some of the best consumer product developers in the world work together to create innovative products with excellent end-user experience.

Our offer

Philips Drachten could be the start of your promising career, with lots of opportunities to develop yourself locally or internationally in different sectors of our company. At Philips you work for an employer whose activities have a major positive impact on people all over the world. You also get:

- Opportunity to strengthen your capabilities and knowledge.
- Dedicated substantial support and guidance from an experienced supervisor and support from several professionals and departments.
- You will receive an internship allowance.
- Within Philips you get the opportunity to expand your professional network.

Contact

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We are looking forward to receive your a CV and a motivational letter containing your ambition as you as you see it now, for at least the coming 3 -5 years

Please note that additional electronics and sensor systems vacancies, as well as biomedical engineering vacancies at Oral Health Care, will be published next week.
This is the first in a series of internship and graduation opportunities at Oral Health Care for the first half of 2027.

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