

Build your own elektrolyser-stack and test the prototype

Client	ENTRANCE – RUG, Hanze, D.N.A, Firda
Related project	Build your own elektrolyser
Start date	A.S.A.P.
Suitable for training course(s)	Associate Degree, Bachelor, Master, Mbo 2-3-4
Learning Community	Entrance REMO-lab

Description Assignment

The energy transition requires technicians to push the next step towards a sustainable future. Within Entrance projects regarding the energy transition are numerous and many of these projects are founded from the perspective of reducing the use of fossil fuels (Carbon hydrogen fuels; CH-fuels). One of the most promising alternatives is hydrogen. It has the potential to replace traditional fossil fuels and reshape the way we power everything from industry to transportation.

At Entrance, within REMO (Renewable molecules)-lab, we produce hydrogen almost every day with a process called electrolysis. Within electrolysis hydrogen is generated with the use of electricity. Electrolysis is performed in a piece of equipment called an electrolyzer.

Assignment

The assignment will be to engineer (and modify) an elektrolyser and test it at REMO-lab. Thus, working in a workshop is required. The stack can be produced according to the drawing below. For details contact Cor Scholte.

Research assignment question:

How can we design, build, and test a functional electrolyzer capable of producing hydrogen suitable for use as an alternative fuel?

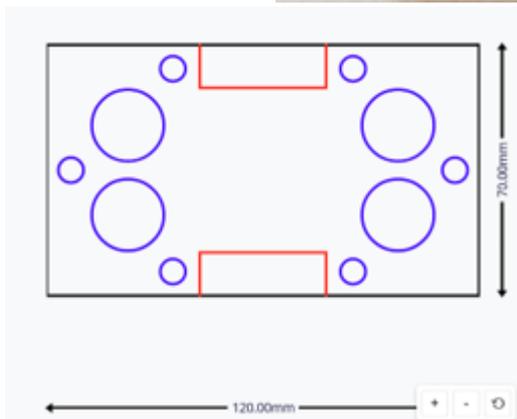
Problem identification:

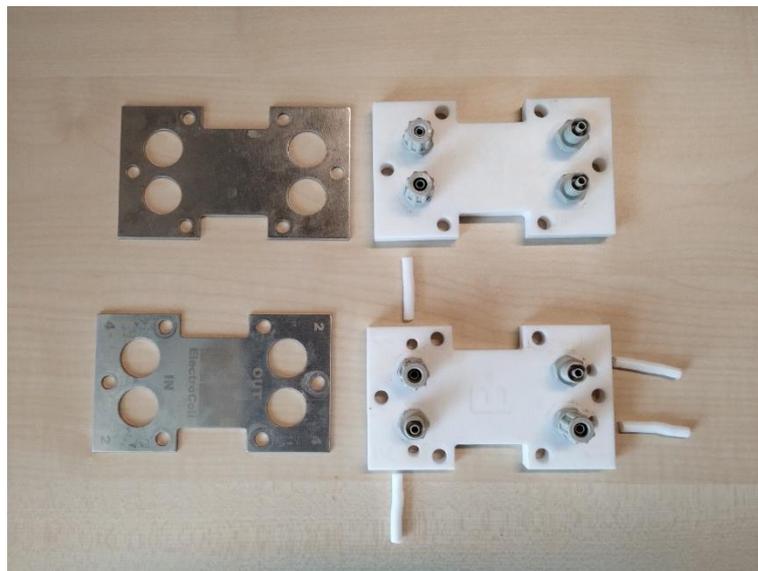
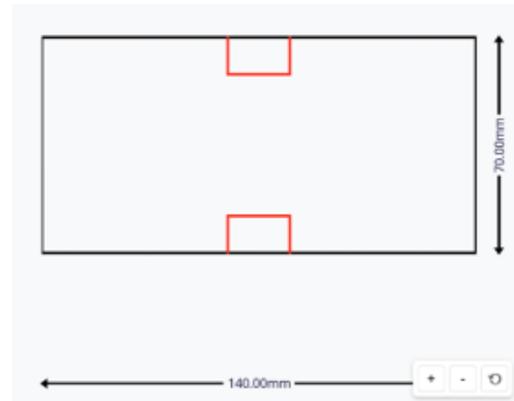
Fossil fuels are polluting the atmosphere. Thus we are searching for alternative fuel that is less contaminated. This is part of the energy transition.

General information

Final Product	A functioning electrolyzer-stack Physical research(test) at REMO-lab
Location	Zernikelaan 17 Groningen/ Groningen Airport Eelde
Parties involved	Hanze, ENTRANCE, REMO-lab, learning community
Contact person	J.C. Scholte
Guidance	J.C. Scholte, J. Reede
Details	Components will be provided by own school. Guidance (teacher own school) will take the assignment (for graduation, minor or project) on theme's: alternative feuls. When agreement on learning-goals etc..XXX. ReMO-lab will provide testground and guidance (J.C. Scholte & J. Reede) for testing a working prototype.

Photo and/or video





What are we and where can you find us?

EnTranCe is a learning knowledge community, in which students and teacher-researchers from various programs work together with researchers, companies, governments, and civil society organizations to accelerate the energy transition.

EnTranCe is the place where, as a student, you work together with lecturers, researchers, businesses, governments, and/or civil society organizations on complex issues. We do this at the following locations:

- Location Living lab, Zernikelaan 17, 9747AA Groningen
- Location Energy Academy Europe, Nijenborgh 6.

What do we offer?

EnTranCe offers you a multidisciplinary, inspiring learning, working and research environment in which you can develop the competencies needed to shape and accelerate the energy transition. There is room for collaboration with professors, researchers, lecturers and the professional field.

In addition, you will be supervised by professionals who are part of the EnTranCe Learning Communities (ELC).

Contact us

Are you interested in the vacancy? Do you have questions or would you like to apply directly?

- Jacqueline Joosse, Coordinator EnTranCe Learning Communities.
- T: (050) 595 4708
- E: entrancelc@org.hanze.nl