HOPPER

SPACE TEAM AACHEN · OCT 2026

Propulsion Test Engineer.

Take a 2.2 kN regeneratively cooled liquid rocket engine from component tests to hot fire, and help put it on a vehicle that lifts off and lands again.

TIME INVESTMENT	TEST SITE	TEAM	START
Min. 2–3 days per week	Aldenhoven Testing Center	~20 students	As soon as possible

The Hopper Project at Space Team Aachen develops a propulsively landing rocket vehicle for the Lander Challenge. It is powered by E2, our own pressure-fed nitrous oxide and ethanol engine with an additively manufactured, regeneratively cooled thrust chamber. Much of the hardware is already built, and our test bench at Aldenhoven is currently being commissioned. Now it is about running test campaigns safely and learning from every one of them, and we are looking for ambitious students to own that work over the coming year.

WHAT YOU WILL DO

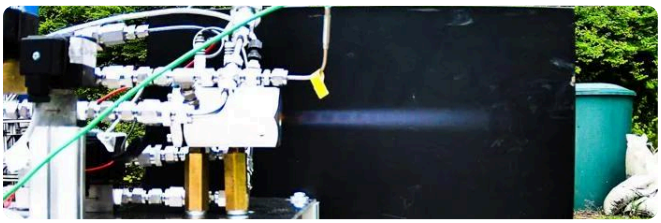
- **Plan and run test campaigns** on our Aldenhoven test bench: component tests, injector cold flows, chamber tests and integrated E2 hot fires.
- **Write test procedures and sequences** with checklists, valve timing and abort criteria, and operate the control software on test days.
- **Own the instrumentation**: pressure transducers, thermocouples, load cell and flow measurement, from calibration to wiring and DAQ setup.
- **Build and maintain the test fluid systems**, including leak checks, proof tests and test article integration.
- **Turn data into results**: post-process test data with our automated tools, derive performance parameters, and write reports the design team can act on.
- **Keep testing safe** through our HAZOP and test site risk assessments, and later bring the full lander to static fire on the pad.

WHAT YOU BRING

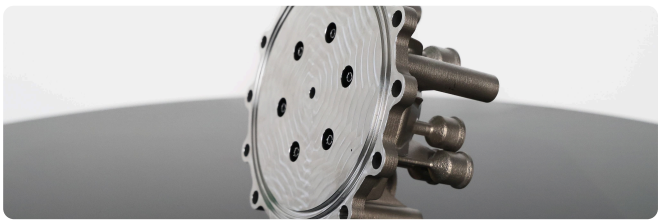
- Studies in mechanical or aerospace engineering, or a related field, in Aachen (preferred early in your studies)
- Proficient in German and English.
- Comfort with hands-on work: tubing, sensors and wiring.
- A basic understanding of thermodynamics, or the drive to build one quickly.
- No problem with early starts, long days and cold winter mornings at the test site.
- A serious attitude to safety, a calm head when things do not go to plan, and time for test days at Aldenhoven, some on weekends.

WHAT YOU GET

- Real responsibility for flight-relevant hardware early in your studies.
- Liquid propulsion test experience that carries straight into the space industry, alongside an ambitious team.



Torch igniter hot fire on our test stand.



Additively manufactured E2 injector head.

Interested?

Tell us about yourself and something you have built, tested or taken apart. Send your CV and a short cover letter as PDF to the email address on the right.

spaceteamaachen.de
hopper@sta.rwth-aachen.de