

Join the road to Mars

What is a Tumbleweed?

The Tumbleweed is a next-generation Mars rover that enables large scale rapid exploration. The wind-driven rovers are deployed in swarms and dropped over the

Martian poles. While strong winds propel them towards the equator, they collect valuable data on-the-roll. Bringing

the CubeSat concept to Mars through modular payloads, we make the Red Planet accessible for researchers, universities, and businesses.



OCT 16

Start of the concept development for the first prototype

FEB 18

Participation in the Austrian Space Forum's analogous Mars mission in Oman

MAY 19 Earth-grade prototype

prototype completed

JUL 17

1st place at the Odysseus Space Contest by the European Space Agency

NOV 18

A prototype becomes an exhibit at the **Technical Museum of Vienna**

What's wrong with rovers like NASA's Curiosity?

Current approaches to Mars exploration are extremely expensive, slow, and encompass a high risk of failure. This greatly slows down exploration efforts and results in a highly restrained capacity for payloads to Mars. While Curiosity moves at a velocity of 0.0003 km/h (~0.00019 mph), a Tumbleweed reaches speeds of up to 20 km/h (~12.4 mph), therefore covering large areas of the planet. The data collected will pave the way for the first manned mission to Mars.

NOV 2020

Follow up Mars-analogous mission in Israel by the Austrian Space Forum

2028

Launch of the first Tumbleweed mission on Mars

SEP 19

Kick off for the development of a **Mars-grade** prototype with teams at different universities

2025

Approval for real Mars mission with completed Mars-grade prototype



The Team in Team Tumbleweed

We are an interdisciplinary group of young, entrepreneurial scientists. With over 3 years of experience building 4 Mars-Rover prototypes & learning from big players in the space industry, we have gathered the experience, contacts, and resources to push the project towards the next goal: a Mars-proof prototype.

With branches in Palo Alto, CA (USA), Boston, MA (USA), Delft (NL) & Vienna (AUT), we think and act globally. We dare to leave an impact by accelerating space exploration.





Julian

CTO, Hardware Development

Delft University

"Designing and building different things has always been a huge passion of mine, together with science and all things space. Getting to do a project like this with an awesome team that shares my passion makes me love what I'm doing even more! Another amazing aspect of working on the Tumbleweed is that it gives me the ability to inspire others, get them interested in space, but also make them realize what they're capable of if they just put their mind to it. After all, when Moritz and I founded the project, we had never done anything like it, but we just went for it - and now we and the rest of our fantastic team. are closer to Mars than ever before!"

Moritz

CEO, Business Operations & Software Development

Stanford University

"My favorite thing about being part of Team Tumbleweed is that I can really play two roles. I can both think about the long term plans, strategy, and organization on a large scale as well as diving into the details of our software architecture. Being able to push this project in these ways is both gratifying and rewarding. I can do what I love, get better every day, and work with extremely talented and inspiring people. It is also amazing to see how this project has evolved over the past twoand-a-half years. We literally started with materials from the hardware store and are now working together with leaders in the space industry"

Why join the team?

Well, how often do you get the chance to work on a Mars rover? At Team Tumbleweed you can work on a truly impactful challenge. We offer a vibrant environment to advance both on a professional & personal level. Having professional R&D resources, extensive knowhow and a strong network within the space industry, we provide a place to gain real-world experience in various fields and shape the space technology of tomorrow. Team Tumbleweed is a platform for the brightest minds and future leaders of the space industry. Work flexible hours on projects you are genuinely interested in, take on leadership positions and even take part in a Mars analogous mission!

Apply now & pave the road to Mars with us!

The benefits in a nutshell

- work on a Mars rover
- real-world learning experience in various fields
- meaningful & high-impact project
- vibrant, international team
- professional resources
- startup atmosphere
- flexible working hours
- opportunity to advance within Team Tumbleweed

Apply via teamtumbleweed.eu/join-the-road-to-mars

Send in your CV and answer 2 short questions

Test period

Let's find out if you and Team Tumbleweed are a good match









Have a talk with us!

Chat with a team-lead, so we can get to know each other

Become part of Team Tumbleweed

Work on exciting projects and get to know the space industry

If you possess the following skills or want to aquire them, don't hesitate to apply:

- Advanced mechanical systems & structures design
- Mission design
- Design for space conditions
- CAD & computational engineering methods
- Composite materials & additive manufacturing
- PCB design

- RF engineering
- Solar energy
- C++, Python & Asynchronous programming
- I2C, SPI, UART, CAN
- Software architecturei
- Computer vision & visual odometry
- Vue, Angular, or React

EVERYONE HAS TO START SOMEWHERE. WE'RE STARTING ON MARS.

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