

# Porsche and Partners Enhance Trekking Wheelchair

*This article reflects the status at the time of its publication. The content may since have become outdated.*

**21/04/2023** The Stuttgart-based sports-car maker and the Procap self-help organization continue their efforts to ensure universal access to hiking in Switzerland. A trekking wheelchair is now set to receive a technical upgrade.

As part of the "Join the Porsche Ride" initiative, Porsche and Procap are advancing one of their projects to enable universal access to hiking in Switzerland, namely further developing a trekking wheelchair. Intended for group hikes, the Protrek all-terrain wheelchair was originally designed at the FHNW University of Applied Sciences and Arts in northwestern Switzerland. With the aim of improving it further, a project group visited the Porsche Vocational Training Center in early March. The Alber company from Albstadt-Tailfingen, which leads the world in mobility aids for wheelchair users, contributed valuable technical expertise.

The Protrek lets people with limited mobility enjoy outdoor excursions on rough terrain, for example in forests or on mountain trails. On such excursions, four to six co-hikers generally push, pull, and/or carry the wheelchair with the person sitting in it. Teams of up to eight members can take part on tours lasting several hours. Despite the Protrek's auxiliary electric drive, excursions require considerable strength and endurance on the part of co-hikers. Thanks to an attachable snowboard, the Protrek can also be used in winter. The trekking wheelchair weighs 33 kilograms. It is foldable and can fit into a medium-sized station wagon.

The Protrek is used on trekking tours organized by the Procap Reisen & Sport company. Two-day group hikes are offered under the heading "Der Berg ruft" ("the mountain calls"). They take place four times a year, with the assistance of regular volunteers such as the experienced alpinist Heinrich Hofer. "The Protrek is a wonderful device," he says. "I'm a machinist, and I generally rebuild most of the machinery I work with until I'm satisfied with it. That wasn't the case with the Protrek. It worked superbly right from the start. The electrified version, however, has a few things that could be improved. For example, the electric drive would benefit from a torsional basis. It also overheats on us sometimes."

The Protrek is not a mass-produced item. It is a small series of around 15 units — with or without an electric drive. This special wheelchair was designed back in 2005 in a joint project with Procap and the FHNW. Stefan Kobler, a research associate at the university, has been involved with the project from the start. "Over the years we've been developing the Protrek further with our students, and we added the e-drive in 2022. The design is very well conceived, and has proved itself over the years. However, our funding is limited, which is due in part to the very small market for commercialization. With Porsche offering to help, the project now has a fresh impetus. Improvements that we couldn't have made on our own are now possible, for instance in connection with the weight or the electric drive."

## Porsche and wheelchairs

Wheelchairs have played a role in Porsche's recent past. The Porsche Engineering Group has gathered experience from two key projects. A Porsche subsidiary headquartered at the Porsche Development Center in Weissach, it designed the fully sprung suspension of the Alber Adventure A10 electric wheelchair produced from 2003 to 2014. Its other main development was a prototype called the P'GASUS. Also an electric mobility aid, this device works similarly to a Segway. Its standing function offers a number of benefits, such as enabling disabled users and their companions to communicate at eye level. From a medical perspective, its advantages include better circulation and a reduction in leg spasms. The prototype has thus far not been serially produced, due to a lack of sales and development partners.

Maic Grabert, a development engineer at Porsche Engineering Services GmbH and himself a wheelchair user, had the following to say: "The P'GASUS is a project close to my heart. I was fully involved in its development. It lets wheelchair users suddenly do completely obvious things like look their companions in the eye — or hold hands with them. I view the Protrek in a similar light. It lets you get out to places in nature that are otherwise hard to access — and gives you marvelous experiences."

## Project group assesses options

A project group is now evaluating a number of different options in order to develop the Protrek further. Its members include the Porsche Vocational Training Center, the Procap Reisen & Sport company including some of its disabled clients, and the FHNW. Students at the FHNW and Porsche trainees are expected to play major roles in the development project. The aim is for the next generation of employees to learn together and to increase their exposure to the topic of limited mobility.

According to Norbert Göggerle, who heads the technical training program at Porsche AG, “The Protrek is a great opportunity for our trainees, with a lot of room for creativity. It's more than just an exercise. We can help people, and that's a wonderful way to enhance our everyday work. The first step consists of listening very carefully in order to correctly identify the wheelchair's strengths and weaknesses. We then want to develop it further in targeted ways, given that it has already received high praise from hikers."

“The visit to Alber GmbH and to the Porsche Vocational Training Center was an exciting day for everyone involved," says David Perren from Procap Reisen & Sport. “I'm impressed at how intensively we exchanged views and ideas. Our trekking tours are very popular — not only for wheelchair users but also for everyone who accompanies them. I'd be pleased to see a few of today's friendly acquaintances at one of our next hikes. Everyone is warmly invited to join us!"

Porsche Newsroom will continue to report on this project.

## Porsche and Procap: Enhancing mobility together

As is fitting for a mobility company, Porsche also seeks to improve mobility opportunities for people with disabilities. In 2022 the sports-car maker launched a development partnership with the Olten office of Procap Schweiz, the largest Swiss self-help organization by and for people with disabilities. The shared aim is to achieve inclusion via mobility and thereby strengthen social ties. The focus is on hiking with universal access. The partnership is intended to make hiking in Switzerland more accessible to people with disabilities. In addition to expanding the network of universally accessible hiking trails, Porsche and Procap are working on other projects with an emphasis on communication and education.

## Join the Porsche Ride

In keeping with its own sustainability goals, Porsche's initiative “Join the Porsche Ride” launches and supports projects that foster social cohesion and quality of life. Its educational and empowerment actions take place in different parts of the world. They all are closely aligned with the United Nations' Sustainable Development Goals. The Swiss project by Porsche and Procap is part of this initiative.

# MEDIA ENQUIRIES



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## Consumption data

**Taycan 4S with Performance Battery** (Predecessor model)

*Further information on the official fuel consumption and the official specific $CO_2$ emissions of new passenger cars can be found in the "Leitfaden über den Kraftstoffverbrauch, die $CO_2$-Emissionen und den Stromverbrauch neuer Personenkraftwagen" (Fuel Consumption, $CO_2$Emissions and Electricity Consumption Guide for New Passenger Cars), which is available free of charge at all sales outlets and from DAT (Deutsche Automobil Treuhand GmbH, Helmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen, www.dat.de).

## Image Sublines

Path: Porsche and Partners Enhance Trekking Wheelchair/Images/img_1.jpg
Title: 1N5A6238.jpeg
Subline: Protrek's single-wheel design enables access to extreme terrain. Trekking companions are needed to operate it. The auxiliary electric drive draws power from a battery mounted under the seat.

Path: Porsche and Partners Enhance Trekking Wheelchair/Images/img_2.jpg
Title: Heinrich „Heiru" Hofer, 2023, Porsche Schweiz AG
Subline: Heinrich "Heiru" Hofer, an experienced alpinist and Procap trek leader, explains the idea behind Protrek hikes. He is practiced in using the wheelchair and has detailed knowledge of its strengths and weaknesses. A machinist with further training in electrical engineering, he is also a source of technical expertise.

Path: Porsche and Partners Enhance Trekking Wheelchair/Images/img_3.jpg
Title: David Perren, Procap Reisen & Sport, 2023, Porsche AG
Subline: David Perren, Procap Reisen & Sport.

Path: Porsche and Partners Enhance Trekking Wheelchair/Images/img_4.jpg
Title: Protrek, Rigi, 2023, Porsche Schweiz AG
Subline: The Protrek in use on Mount Rigi

## Link Collection

Link to this article
https://newsroom.porsche.com/en/2023/sports-society/porsche-switzerland-procap-swiss-handicap-trekking-wheelchair-32046.html

Media Package
https://pmdb.porsche.de/newsroomzips/4750de70-8bf7-4cdf-932a-17e0814ddba5.zip

External Links
http://www.procap.ch/
www.procap-reisen.ch

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