# Autofuel using robotic refueling to provide greater equity for disabled gas station users

**Autofuel, a leading innovator in automated robotic refueling systems, is working to address the needs of people with physical disabilities when refueling their vehicles.**

For people with physical disabilities, topping up their car's tank can be a daunting task. For example, someone with a wheelchair will face a number of obstacles when trying to refuel their car, including difficulties in reaching the payment terminal or properly utilizing the gas hose. People with muscular diseases can struggle to open their screw-on gas caps, pick up the hose, and insert it into the car. These are all real-world problems that millions of people with disabilities face on a daily basis, and none have been addressed by modern gas stations that have remained almost unchanged for decades.

As gas stations are most often busy throughout the day, it can be easy for owners to overlook the needs of people with disabilities. **Autofuel** is now working to give people with physical disabilities access to their automated robotic refueling systems. This endeavor began when a man from Finland named Markus Pitkänen who requires the use of a wheelchair reached out to Jonas Thor Olsen, the Co-founder of Autofuel, and told him how much the automated fueling system had made his life easier.

“It was almost a life-changing moment for this man because he didn’t have to get out of his car and worry about dealing with the struggle of refueling his vehicle, and he told me this is something that should be at gas stations all over the world alongside other standard accessibility features for disabled users,” says Olsen. “I could see how much this could benefit people with physical disabilities not just physically, but also mentally, as it helps alleviate some of the stigma experienced by disabled gas station users that are brought on by the challenges they face and the pressure of waiting drivers. With our robotic refueling technology, users never have to leave their car, which for disabled drivers means they are not differentiated from any other users in the refueling of their car. We are working to put a focus on how the automated fueling systems can change the lives of people with physical disabilities.”

A thick or slushy snow cover makes refueling impossible for me because I may not be able to get further than a meter at the station. Likewise, frost and freezing rain may make refueling difficult.

Pitkänen says he struggles with some of the harsh winter weather conditions in Finland and the Autofuel robotic technology helps him avoid hazardous conditions and save time and energy when refueling.

Pitkänen told Olsen, “For me, driving a car means more independence, I don’t have to rely on the help of others or their schedules. I can choose where I go and when I go. However, this is not always the case with refueling the car. I must choose a gas station that I know for sure is accessible, that doesn’t present difficulties in reaching card terminals from a wheelchair, or requiring staff to help with the fuel nozzle. In my case, the robotic technology speeds up refueling considerably. Instead of fifteen minutes, it takes me about four to five minutes to refuel the car with the help of an automated robot.”

Along with feedback from their Finish installations, Autofuel has also been contacted by disabled persons who, after seeing videos of the tech at work, wish to see Autofuel roll out in their regions. One Danish woman using a wheelchair reached out to the company to find out if they had any systems installed at any gas stations in the country. While Autofuel has yet to roll out in Denmark, Olsen has sent the woman one of Autofuel’s adapters as she struggles with her screw-on fuel cap at gas stations, as a result of a muscular disease. Olsen says this was another instance in which the capabilities the automated fueling systems have to help people with physical disabilities were highlighted. In addition to being an efficient method for helping the physically disabled, Olsen says the Autofuel system is great for senior citizens.


“In countries like Finland and Denmark the weather can be very rough during the winter months, which can be hazardous for senior citizens, so I think it will be great for Autofuel to give them the ability to stay in their car and not have to worry about the potential for injury when dealing with heavy rain or snow, or even the discomfort of glaring sun in hotter regions of the world” says Olsen. “At the same time, Autofuel can potentially protect users in areas where they feel unsafe as our tech does not require drivers to leave their vehicles.”

For people to use the Autofuel system they first have to sign up through the company’s platform where they will register their car and provide the necessary payment information. Upon arrival at one of the gas stations that have the automated fueling systems set up the users of Autofuel will follow guidance instructions that are similar to a car wash. Once the car is parked and shut off, a robotic arm will open the gas cap and remove an adapter that has been given to the users to replace the screw cap. The robotic arm will then insert the gas hose into the car and begin fueling until the requested amount of gas has been put into the vehicle. Through their platform, Autofuel is able to fill their user’s vehicles with their preferred type of fuel.

According to Olsen, the Autofuel systems in Finland have garnered a high amount of positive feedback and people are very happy to be given the ability to use them. The current demand for more Autofuel systems has generated a waiting list for people to become users, and the company is seeking to meet that demand with the installation of more systems throughout Finland.

Moving forward, **Autofuel** will continue to put focus on the needs of people with physical disabilities who need to refuel their vehicles and how the automated robotic system can make a positive change in their lives.

## Contact information

**Autofuel Aps**
Ansager Landevej 13
7200 Grindsted
Denmark

+45 21620986

www.autofuel.eu

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