



A prototype of the Ulmer Nest | Photo source [Ulmer Nest](#)

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SOLAR-POWERED SLEEPING PODS TO HELP SHELTER THE HOMELESS

 ARCHITECTURE & DESIGN

The windproof and waterproof Ulmer Nest can serve as an emergency shelter to protect the homeless from harsh winter conditions

Spotted: When researching homelessness in Germany, an Ulm-based team of designers and computer scientists concluded that many who are sleeping rough did not choose to stay in dedicated homeless shelters. The reasons ranged from not wanting to be separated from their pets to fears of crime and violence. With this in mind, the team has been developing sleeping pods intended to provide shelter, especially in the harsh, sub-zero temperatures of a German winter. Named Ulmer Nests, two prototypes have been installed in the German city of Ulm. The pods are made using solid timber and powder-coated metal and are fitted with solar panels and other necessary technologies.

Timber was selected as the main building material for its durability and insulation properties, as well as its economical and ecological aspects, and metal is used in the parts that require intensive cleaning. Once assembled, the Ulmer Nests are coated with a stain to protect it from the weather. Inside, the pods are equipped with a heat exchanger to supply fresh air, GPS sensors, smoke alarms, and a motion detection system that alerts Ulmer Nest members to someone spending the night inside. Furthermore, they are designed to be protected against fires and include an electronic verification system, so the pods can be locked from the inside.

The first Ulmer Nests were installed in the winter of 2020 as part of a pilot project. Although the pods are still in the early testing stages, the team hopes that with adjustments to improve their functions, they will soon be able to provide a welcome respite to rough sleepers across Germany.

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Takeaway:

In Germany, there are several factors that contribute to homelessness, including a decrease in the number of social housing units, alongside the rarity of affordable housing. In 2018, there were 678,000 homeless people in the country, which was a 4 per cent increase from the year before. While a majority sleep in emergency quarters, 41,000 people still sleep in the streets. The Ulmer Nests will provide both a practical and safe alternative to homeless facilities which are particularly overwhelmed at the moment, due to the pandemic.