

## Shinshu University – Team Hokkori

### Warmth Underfoot with Local Wood from Shinshu

Team Hokkori is a student-led project initiated mainly by medical students at Shinshu University. It began with a simple yet familiar concern: “My feet get cold during winter lectures.” From this everyday discomfort, the students explored eco-friendly and energy-saving solutions using locally sourced wood.

Through creative problem-solving and cross-disciplinary teamwork, they pursued ways to combine warmth and environmental awareness – an approach grounded in the principles of Education for Sustainable Development (ESD), which encourages learners to take action for a more sustainable, resilient society.



### From Cold Floors to Sustainable Ideas

Bothered by the cold concrete floors during the winter, a group of students submitted a proposal to a university-wide energy-saving idea contest. Their focus was on the insulating properties of wood. They used thinned wood collected from the university’s forest (managed by the Faculty of Agriculture) and laid it underfoot to test temperature differences.

Thermal imaging revealed that standing on the wood raised foot temperature by about 1° C compared to concrete. The results showed that it is possible to improve comfort while reducing energy use, offering a simple and sustainable solution for cold indoor environments.



### Interdisciplinary Collaboration for Sustainable Innovation

Team Hokkori brought together students and faculty from different departments:

- The Faculty of Agriculture supported wood processing.
- The Faculty of Engineering helped with thermal measurements.
- The Faculty of Medicine provided expertise on health and body temperature regulation.

Thanks to this university-wide collaboration, the project became a successful model of how different fields can come together to address real-world issues in sustainable ways.

Looking ahead, the team plans to explore additional materials, such as reflective sheets and new insulation layers, to increase the warming effect. Their goal is to continue enhancing sustainable campus life through student-driven innovation.



## Reflections and Future Possibilities

What started as a small, personal discomfort grew into a broader learning opportunity – combining science, design, and sustainability. Team Hokkori's efforts are a powerful example of how students can lead meaningful change when they apply local resources and diverse knowledge to everyday challenges.