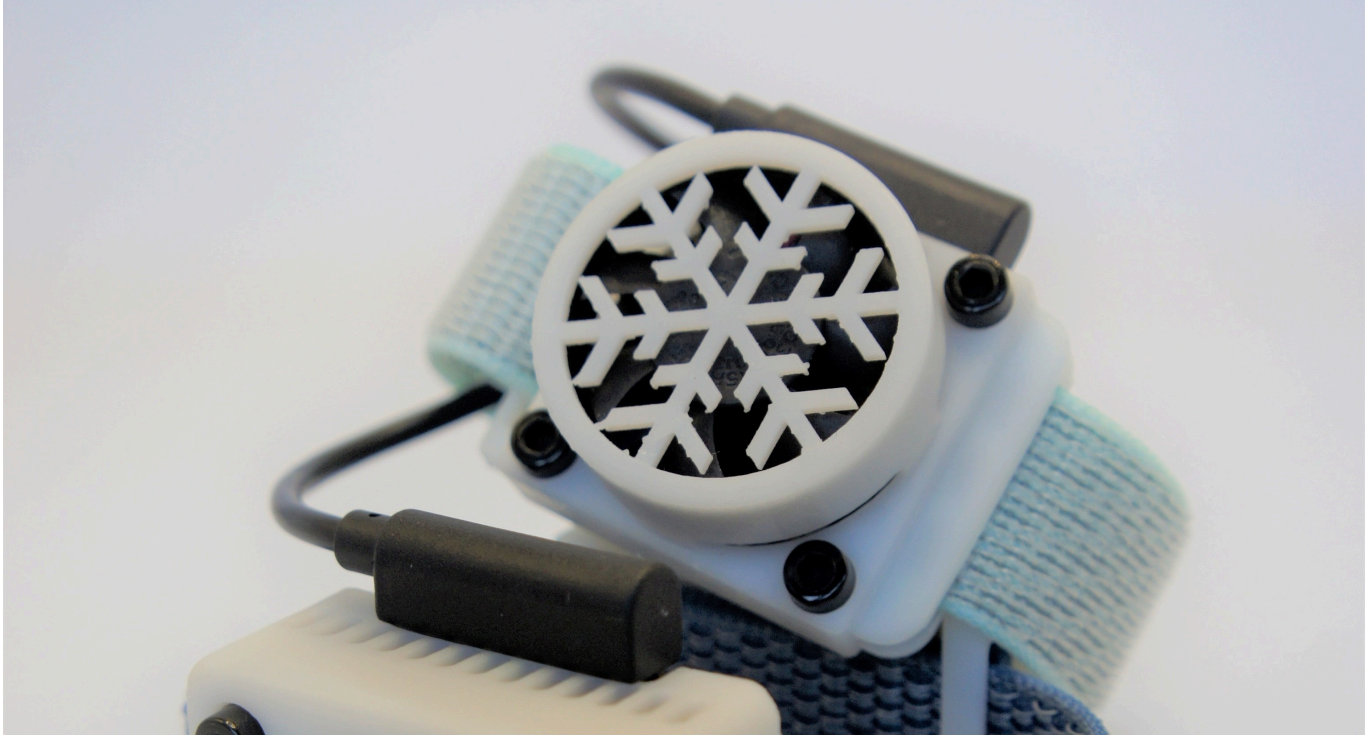


**TECH OFFER**

**Personalised Wearable Cooling Device**



**KEY INFORMATION**

TECHNOLOGY CATEGORY:

Sustainability - Sustainable Living

Personal Care - Wellness & Spa

TECHNOLOGY READINESS LEVEL (TRL): **TRL8**

COUNTRY: **SINGAPORE**

ID NUMBER: **TO174949**

**OVERVIEW**

As climate change has led to hotter days, people are looking for ways to stay cool on the go. Whether for daily commutes, outdoor adventures, or work-related trips, there is a growing demand for portable cooling solutions. This technology offers a platform that can be applied to various wearable devices to cool down the human body. The battery-powered thermoelectric system is small, lightweight, and portable and can be used to create a variety of cooling products.

This technology has the potential to make a real difference in people's lives. It can help people stay cool and comfortable in hot weather, which can improve their productivity, safety, and overall well-being.

The technology provider is **seeking collaboration partners to leverage this innovative cooling solution to develop alternative applications** such as cooling sports equipment or personal protection devices.

## TECHNOLOGY FEATURES & SPECIFICATIONS

The technology includes a battery-powered thermoelectric system that is lightweight and compact, weighing less than 60 grams. This makes it easily adaptable to wearable devices. The technology provides instant relief to the wearer in places of contact by directly cooling the body's circulating blood. This minimizes energy wastage, providing longer-lasting cooling without compromising performance.

## POTENTIAL APPLICATIONS

1. The technology can be applied to a variety of wearable devices, such as neck devices, wristbands, jackets, and more.
2. The device can be optimized for different environments and activities, including travel and commuting, indoor workplaces, outdoor recreation activities, outdoor sports and fitness, and industrial workplaces.

## MARKET TRENDS & OPPORTUNITIES

The market potential for personal air conditioner technology is promising. The global wearable air conditioner market size is projected to reach \$7 billion in 2022 and grow at a CAGR of 19.3% to reach \$41 billion by 2032. This growth is driven by the increasing demand for personalized and portable cooling solutions, as well as rising temperatures, global warming, and a growing focus on individual comfort and well-being.

The market is currently dominated by a few players, but this technology stands out as the only solution capable of delivering uninterrupted cooling to the wearer. It was also well received on TrendHunter.com, a leading online trends platform.

## UNIQUE VALUE PROPOSITION

This technology provides a new way to cool down in hot and humid conditions. It is different from traditional cooling devices that merely circulate air. This technology provides targeted, continuous, and efficient cooling directly to the wearer's skin. This makes it more comfortable and effective than other cooling solutions.