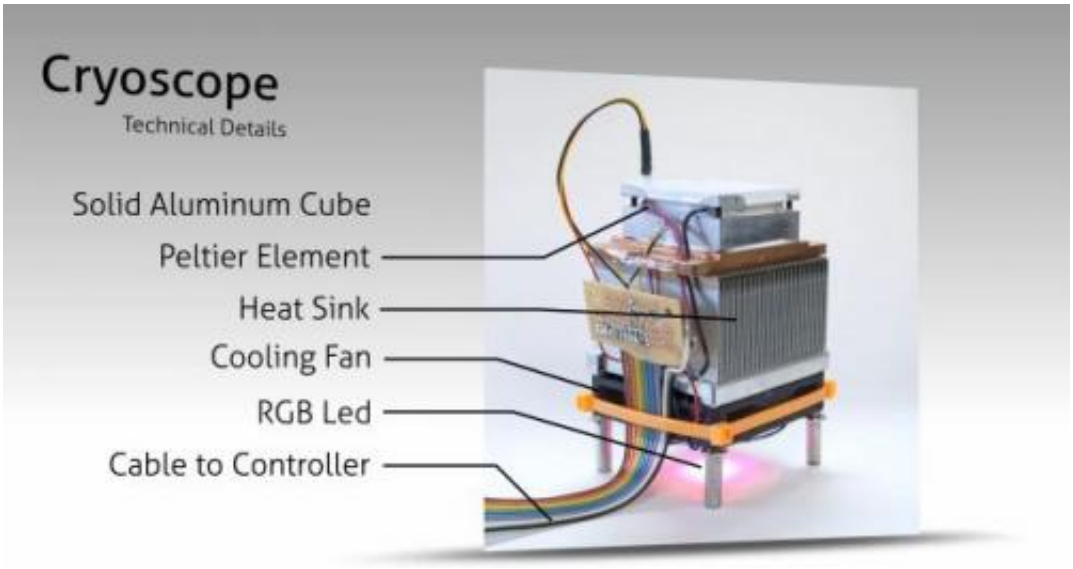
Haptic cube lets you feel tomorrow's temps

February 7 2012, by Nancy Owano



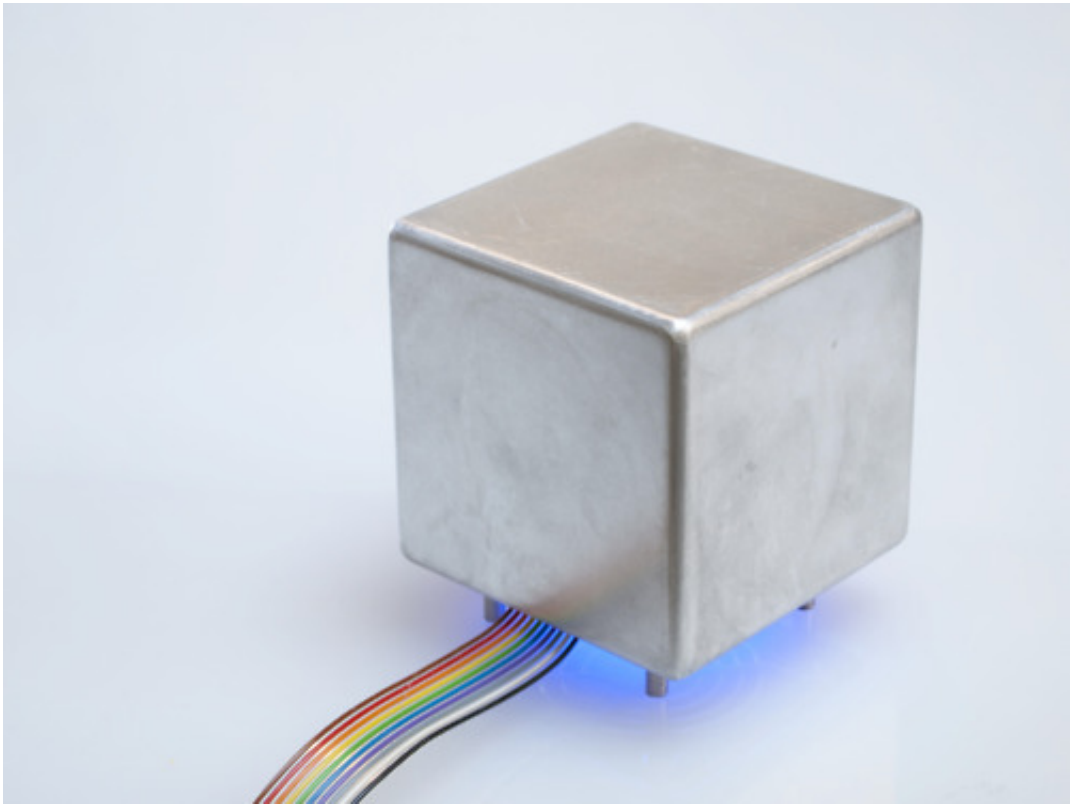
(PhysOrg.com) -- Will it be an invention joining a storage room of other inventions? Or kicked further up to gadget boutiques for the very rich? Or a popular gadget for many worldwide? Whatever its destiny, the device concept of a haptic weather cube has been making the rounds of tech-gadget sites. Robb Godshaw is the creator of the device, which he calls the Cryoscope. This, he says, is a haptic weather forecaster, which he demonstrates in a video.

He shows an aluminum cube that was designed to let you feel what tomorrow's weather will be. Beyond numbers, beyond weather-page

icons, he has devised what is intended to be a useful way for people to get a sense, literally, of the temperature for the following day.

“One year ago,” he said, “I designed and built a small wooden cube with a metal surface on top. This device’s only function was to get very cold. It was a conceptual piece which I presented as a sort of desktop dynamic sculpture. Recently I was thinking about ways information about weather is conveyed. I found myself disappointed in systems that rely on numbers which have little to do with how humans perceive hot and cold. I sought to develop a device that conveyed the forecast in a manner which left nothing to the imagination."

Godshaw also said that “The Cryoscope shows the user exactly what to expect outside by haptically exhibiting exactly how cold or warm it is to be outside. The user simply touches an aluminum cube that has been heated or cooled to the appropriate temperature. The unit fetches weather data from the internet, and translates it to the cube physically, pumping heat in or out of the cube.”



An Arduino controller connected to the cube is the brains behind the operations. As the concept goes, the user enters location information into a web application. The cube is automatically adjusted to the temperature according to the next-day forecast. Then, the user touches the Cryoscope to feel that temperature.

Inside the cube is a Peltier thermoelectric element, which is used to pump heat in and out of the chassis, said Godshaw. Also encased in the cube are heat sink and cooling fan. The neutral state of the cube is about 85°F(30°C), which is perceived as neutral by the skin. The cube is then adjusted by the number of degrees that forecast differs from typical room temperature (73°F/23°C), according to Godshaw.

Godshaw describes his work as “tinkerer” at Syyn Labs and “a maker of funky whats-its.” (At Rochester Institute of Technology’s Industrial Design program, he developed edible cupcake liners and a no. 2 pencil making machine.) At the Los Angeles-based Syyn Labs, which creates interactive art for agencies, brands and production companies, his official title is associate engineer.

While the Cryoscope is not to be found on store shelves any day soon, Godshaw said that, “As far as commercialization, the prospect is being seriously considered."

More information: robb.cc/