Patent Search

Invention Title	DEVELOPMENT AND FABRICATION OF HELMET COOLING SYSTEM
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Abstract:

6. ABSTRACT: A biker helmet should generally be light in weight and provide ample ventilation because bike riding can be an intense aerobic activity which significantl body temperature, and the head in particular needs to be able to regulate its temperature. The dominant form of the helmet up to the 1970s was the "hairnet" style, construction made of rubber bars covered in leather. This offered acceptable protection from scrapes and cuts, but only minimal impact protection, and was mainly racing cyclists. Now a day's people are facing problem with helmet due to heavy heat and sweat inside it. To reduce this, we have to provide cooling effect by using th module. To calculate the cooling effect, we have to use an empirical formula & taken the calculations.

Complete Specification

Description:DESCRIPTION:
Field of the invention:
The field of the invention relates to mechanical engineering, specifically focusing on the development of a cooling system for motorcycle helmets. This invention int
thermoelectric cooling technology to address the problem of heat build-up inside helmets during prolonged use, particularly in warm climates or during extended r
The solution employs thermoelectric modules, heat sinks, and cooling fans to provide an air-conditioned effect within the helmet, enhancing rider comfort and safe
Background of the invention:
Helmet Cooling Challenge is the project addresses the issue of excessive heat and sweat inside helmets, which causes discomfort for riders. This problem is particu
significant in warmer climates and during long rides, where the internal temperature of the helmet rises, making it less appealing to wear.
The history of helmets highlights their transition from leather skullcaps to advanced designs integrating materials like carbon fibre and Kevlar. However, even with t
advancements, comfort in terms of heat regulation has remained a concern.
Thermoelectric modules, based on principles like the See beck and Peltier effects, provide a solution for active cooling. This solid-state heat transfer technology has
widely used in applications like medical devices and electronics cooling, but its application to helmet cooling is innovative.
Helmet cooling system reveal studies on helmet cooling mechanisms, including phase-change materials and reflective designs. However, the integration of thermoe
cooling for air-conditioned helmets marks a novel approach. This background lays the foundation for developing an air-cooled helmet, addressing a pressing need v
utilizing cutting-edge thermoelectric technology

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