Beetle Inspires Award Winning Design

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Beetle inspires award winning design, according to BBC News 9 Dec 2010. Researchers at the University of Leeds have won an award for outstanding contribution to innovation and technology at the Times Higher Education awards in London (UK) for developing a new kind of spraying technology based on the spray defence system used by an African beetle, known as the Bombardier beetle because of its ability to blast potential attackers with bursts of hot toxic steam. The research team simulated the beetle spray mechanism by building an experimental device that uses heating and flash evaporation techniques to propel a variety of liquids up to 4m (13ft). Using the beetle based system engineers can control the droplet size, temperature and velocity of the spray mist. They hope the technology can be developed to build water based spray systems that have many applications from new types of nebulisers and needle-free injections, to fire extinguishers and fuel injection systems. The method is also more environmentally friendly as it uses water rather than chemical propellants. Andy McIntosh, professor of thermodynamics and combustion theory, who led the team, commented: "Nobody had studied the beetle from a physics and engineering perspective as we did, and we didn't appreciate how much we would learn from it.

BBC

Editorial Comment: Studying something from a "physics and engineering perspective" means looking at it from a creation-based mindset. Something is only engineered if there is a creative designer and builder behind it. This research and its application is a good example of the effectiveness of creation based science. Andy McIntosh is a leading Christian creationist speaker in the UK and is involved in an organisation named Iruth in Science that promotes the teaching of science from an intelligent design point of view. (Ref. design, insects, arthropods)

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