

Electric balaclava heats air to help winter athletes



A partnership between [Nottingham Trent University](#) in the UK and Germany's advanced textile and knitting machine manufacturer Stoll, the electric balaclava warms the material around the nose and mouth. A rechargeable cell battery fits into the back of the balaclava and is directly linked to the panels in the front. The electric-conductive yarn stays at a constant temperature, warming air before an athlete inhales it.

The current supplied by the battery is so low that the wearer cannot feel it. The research team sees the garment being used by winter sports athletes who are at higher risk of chest infections when training outdoors. Reflective yarns increase visibility of the wearer in the dark winter months, and the balaclava is fully washable.

Many smart textiles focus on health, like these [socks that detect infections in diabetics](#) and these [shirts that change color](#) depending on current levels of air pollution. What else could connected textiles detect or share?

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