

College student invents cardboard vacuum cleaner

July 7 2011, by Bob Yirka



(PhysOrg.com) -- In another attempt to reduce the amount of plastic refuse that winds up in landfills, Jake Tyler, an industrial design student at Loughborough University has devised a means to construct a working



vacuum cleaner out of corrugated cardboard. The vacuum, developed as part of his final year degree project in conjunction with a design team from Vax, where Tyler is now employed, has its housing made of cardboard, while the inside motor works employs recyclable pure nylon plastic using rapid process manufacturing, rather than injection molding.

Called the Vax ev, the cleaner is designed to be assembled at home by the customer using the cardboard from the box in which it is shipped. The cardboard is pretreated with fire retardant, and because it is the corrugated variety, it is assumed it will be able to withstand the rigors of home vacuuming, though, it isn't clear just yet how long such a vacuum cleaner would last. In its favor, the entire housing can be easily and cheaply replaced, and customers with some foresight might in fact purchase some extra corrugated cardboard from their local packaging store, along with their new vacuum and then use the original panels as a pattern for fashioning their own replacement panels thus avoiding having to go to the manufacture when their new vac runs afoul of some heavy furniture or perhaps a bit of a liquid spill.

Vax, the U.K.s leading floor-care brand says that the new model will be a limited edition, as it's uncertain just how many customers would actually buy such an appliance.





The housings for traditional vacuum cleaners are generally made of injection molded plastics of the type that take a very long time to decay in a landfill and require large centralized plants to make, which means large transportation costs and more air pollution. With rapid process manufactured plastics, such as those used for the inside parts of the Vax ev, parts can be made almost anywhere, making it easier to set up small plants that are closer to the customer.

In an interesting side-feature, future owners of the Vax should be able to very easily customize their vacuums with felt tip pens, creating designs that might make the vacuum look a little less like a cardboard box with wheels, and more like a piece of art, or even perhaps, more like the plastic covered models that home vacuumer's are used to seeing.



More information: via Press release

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