

BBC Science Team Builds Coffee Fueled Car... The Carpuccino

March 10 2010, by Ted Goodman



The car that runs on coffee, so you don't have to...?

(PhysOrg.com) -- Think *you* need a lot of coffee to get going in the morning? How about 56 espressos? That's the kind of power the experimental car, the "Carpuccino," needs just to travel one mile!

The coffee-guzzling 1988 Volkswagen Scirocco, was created for the [Big Bang Science Fair](#), a BBC-sponsored traveling show for kids that begins in Manchester, England on March 11, 2010. It was built by the BBC1 team of [Bang Goes The Theory](#), a popular science show for kids ages 8 to 14. *Bang Goes The Theory* will broadcast the Carpuccino's escapades this May.

Carpuccino, the aptly-named mobile, will need approximately 155 pounds of [coffee](#), the equivalent of 11,760 espressos, to make the 210 mile trip from London to Manchester. At retail prices, the coffee would

cost about 15 times the cost of gasoline, but BBC1 is using coffee grinds gathered from British-based coffee meister, Costa Coffee. (Note to self: add automobile fuel to list of [21 Ways To Use Old Coffee Grounds](#)).



Carpuccino's fuel tank. (Image via Daily Mail)

Unfortunately, you can't just pour the coffee grinds down your [fuel tank](#), so BBC1 built a special fuel system to convert the grinds into the “caffeine” needed for Carpuccino’s take-off. They are poured into a gas cylinder and heated in a charcoal fire, where the coffee breaks down into hydrogen and carbon monoxide before being piped into the Carpuccino’s roof-top radiator. There, the gases are cooled before passing through the car’s dual-filtering system which prevents tar and solids from entering the engine.



How The Carpuccino Works (Image via Daily Mail)

As you may have suspected, the Carpuccino's tank doesn't hold 155 pound of coffee required to make the trip from London to Manchester without refueling, so the team will have to stop every 30 to 45 miles to refuel. In addition, every 60 miles, the coffee filters will need changing! With all the stops, it's estimated that Carpuccino will take about 10 hours to drive the 210 miles to Manchester.

Yes, it's a grind, but it's all in the name of *Science*, proving to young students that the more you know of it, the more anything is possible.

More information: Daily Mail: [www.dailymail.co.uk/sciencetec ...
use-filter-lane.html](http://www.dailymail.co.uk/sciencetec...use-filter-lane.html)

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