

# Jaguar's new electric concept supercar -- the C-X75

October 4 2010, by Lin Edwards

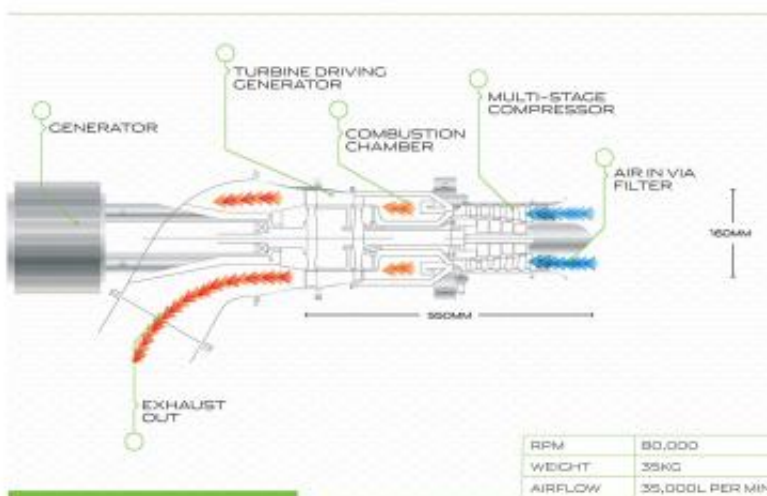
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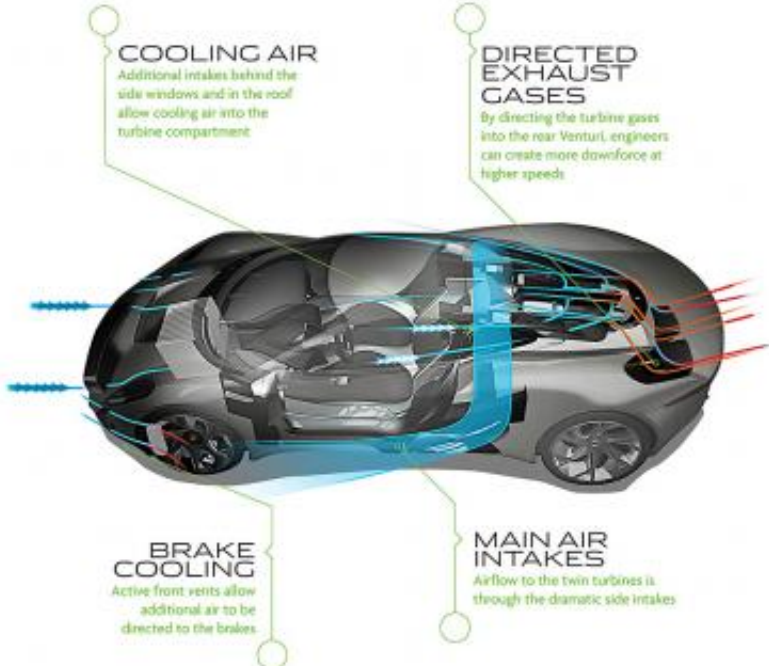
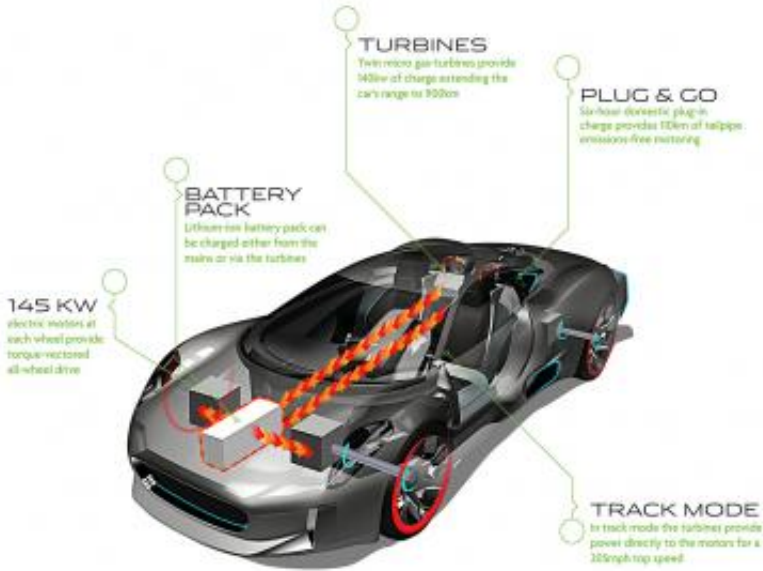
(PhysOrg.com) -- The new Jaguar C-X75 supercar concept model unveiled last week is primarily a plug-in electric car but with the added power and performance of micro gas turbines (jet engines) that would make it the fastest electric car on the road.

An electric motor on each wheel delivers 145 kW from a single floor-mounted [lithium ion battery](#) pack that gives the car a range of up to 110 km on electric power alone. When the battery runs down it can be recharged in six hours from a normal household mains outlet.

The Jaguar C-X75 (named for Jaguar's 75th anniversary) has another option that other [electric cars](#) do not offer, which is a boost by two 70 kW micro gas turbines running on a choice of natural gas, liquefied [petroleum](#) gas, diesel or biofuels, mixed with air. The micro gas turbines spin at 80,000 rpm and can power the electric motors directly (increasing the power) or can be used to recharge the battery (increasing the range).



The micro gas turbines are extremely small and relatively cheap to manufacture. They can run at a fixed, most efficient RPM to recharge the batteries, and provide high performance and efficiency but with low emissions and low maintenance costs. Despite being a type of [jet engine](#), the micro gas turbines are said to be low noise and produce no vibration.



Jaguar claims the two-seater car will be able to reach 100 km/h (62 mph) in 3.4 seconds, and will have a top speed of 330 km/h (205 mph) when the batteries and turbines are working together. The all-wheel drive produces a torque of 1,600 Nm (1,180 lb-ft). The [gas](#) turbines extend the maximum range to 900 km (560 miles), with carbon emissions of only 28 g/km with the turbines running.

The Jaguar C-X75, which was unveiled last week at the 2010 Paris motor show, is at the concept stage and may never be produced, but even if it is never marketed, elements of the design could find their way into future Jaguar cars.

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