

# Aura, a concept vehicle

Leuven, Belgium

Summer Internship, Olin Year 2

I spent my time in Leuven working with renowned nanotechnology research institute, **imec**.

Aim: To design a **concept car** from scratch, with a futuristic aesthetic and high-tech engineering design.

The vehicle targets **Europeans that commute in the cities**. It is to bridge the gap between the bicycle-commute that is commonplace and the unnecessary car commute that is inefficient. It is a push for **renewable energy & sustainability**.

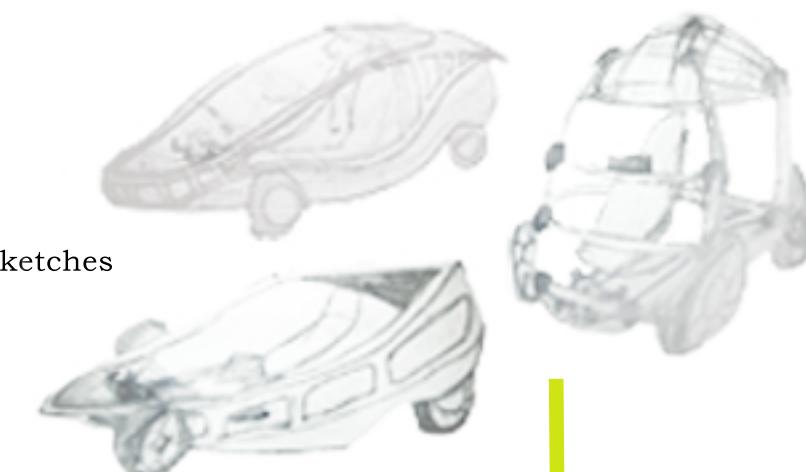
Design: *Aura* is a **3-wheeled pedal-powered vehicle** that aim to preserve the exhilaration of a bicycle ride while integrating the comfort of a car, as requested by our users. It allows the rider to pedal while using electric-motor assist when required. *Aura* is different because of its sustainable ‘cradle to cradle’ manufacturing cycle and nature-friendly transport.

*Aura* wants to be more than just a vehicle. It is an accessory, a partner in **connectivity** with the community **via the smartphone or tablet**. The high-tech integration allows for the modern-day user to embrace the power of the social network.

We worked to design the **engineering**: in-hub motor control, its mechanics, and integration with the pedal-power. We laid out the **controls system** that allows the vehicle to decide when to provide the electric-assist and also integrates the user's needs via the smartphone. And we sketched the exteriors and interiors design of the car [as shown].

[Manufacturing is set for a June 2012 start.]

Initial Sketches



Final Design & Dimensions of *Aura*

