COMPANY
Ather Energy

LOCATION
Bangalore, India

SOFTWARE
Autodesk®ALIAS®Surface
Autodesk®VRED®

> The advancement of tech is surely helping. IoT is ensuring that every device is by default connected now. As the new-age tech-based platform and architecture allows us to adapt, it helps us to make the product and the customer experience much better.
>
> **Tamilanbu Murthi**
> Digital Sculptor, Ather Energy

> We didn't go about designing Ather with the idea of designing an EV. We went about with the idea of it being a better vehicle, and EV being a part of it
>
> **Tamilanbu Murthi**
> Digital Sculptor, Ather Energy

> In the digital platform we started with Alias to turn our product sketch into 3D model. Autodesk VRED then helped us with its visualization / VR tool. It made our marketing easier with high quality rendering. We were able to generate high quality images for both our internal / external presentations. VRED has a great library of material, colours textures, which greatly reduced our time to market. This kind of flexibility and fluidity is available in both VRED & ALIAS software of Autodesk.
>
> **Tamilanbu Murthi**
> Digital Sculptor, Ather Energy

DESIGNING THE VEHICLES THAT DRIVE THE FUTURE

Ather Energy leverages Autodesk ALIAS Surface and VRED for faster digital modelling and virtual prototyping for its smart electric scooter to kickstart the EV uptake in India

Introduction

The EV market has seen slower traction so far due to the lack of quality product and experience, in addition to the lack of an ecosystem and the infrastructure that electric vehicles need to be supported with. But coupled with technological advancements and consequent cost optimisation, the EV market is sure to increase confidence among the consumers because of a variety of choices available. Ather Energy has pioneered this shift with its superior product and overall customer experience. Ather Energy is a homegrown vehicle manufacturing brand that is taking India's EV sector by storm through its electric scooter, the Ather 450X and Ather 450 Plus. These scooters have been meticulously designed with a refreshing approach to redefine the two-wheeler riding experience in India. The company has not just manufactured these scooters but is also well ahead in the process of creating superior infrastructure to create a customer experience that is unparalleled in the industry. The company also plans to go global by entering at least two international markets by March 2021, in South East Asia, because of the high demand for electric two-wheelers in these markets.

Ather 450X: Designed for a new era

The Ather 450X is the flagship smart electric scooter with a superior design that makes it a frontrunner in the EV market. From its inception in 2013, Ather Energy's electric scooter has come a long way in terms of product design. From a screen that fulfils the need for navigation or attending to incoming phone calls without needing mobile phone, to a reverse assist to a spacious 22-ltr boot space, Ather 450X is designed to meet the needs of today's tech-driven consumer. Ather Energy also owns and operates its own experience centres called Ather Space, where the focus is on educating the customer about the entire process and product history, enhance product understanding, and providing a first-hand experience of the product and the Ather service ecosystem.

AUTODESK.

Overcoming Design Challenges with Autodesk

Traditionally, the automotive design process went through the stages of product/concept sketching, modelling (often clay modelling), surfacing, visualisation, and prototyping, using different software at each stage, which took a lot of time. The real-scale prototype is what the design objective is intended to achieve, because automobile prototyping helps scale the product faster.

Autodesk's solutions helped Ather Energy to create digital prototypes faster. Ather Energy used Autodesk ALIAS Surface, to build realistic-looking 3D models from product sketches. Using fast concept modelling and high-quality precision surfacing functionalities, ALIAS Surface creates advanced surfaces, curves, and forms to build revolutionary designs with customisable features and aesthetics. It translates the product/concept sketches to surface models in a 3D environment and preserves the design intent throughout the design cycle. The use of ALIAS Surface also eliminated the need to depend upon another CAD visualisation tool in the design process at Ather Energy.

> A lot of decision making happens within ALIAS itself. We do not have to move to another software and we are not dependent on another one. So, a lot of time is saved and this results in better decision making for the designers.
>
> **Swagath Rath**
> Design Manager, Ather Energy

Autodesk ALIAS Surface translates product sketches to create customisable designs using fast concept modelling and high-quality precision surfacing functionalities

Autodesk VRED's high quality rendering capabilities and Virtual Reality Support for all digital prototypes and pre-production collaterals provided flexibility to the Ather design process and aided them in getting to market quicker. VRED has reduced the time to look at the product model on a real scale. Usually the designers, after the modelling phase, go to the physical prototype stage, and make decisions on the size and proportion of the model. This can now be done with Autodesk VRED Design and it reduces the time and costs taken in creating physical prototypes. A digital model visualisation in real scale is always important in the design process to enable faster decision making which is possible with Autodesk VRED.

Autodesk VRED enables faster digital model visualisation in real scale and hence faster decision making.

Adaptive design approach for a sustainable future

Ather's smart electric scooter needed to give the company a distinct identity and create an aspirational pull, and hence design aesthetics were deemed important and kept at the core with all the vehicle parameters like chassis, battery design, etc.

Ather Energy hopes to be an integral part of the country's electric vehicle wave with its portfolio of commuting products and solutions. In its bid to help build a future-ready ecosystem, Ather has also established an electric vehicle charging infrastructure called Ather Grid. Ather Grid has DC-fast-charging stations that use Ather's proprietary charging method and connector to charge the Ather scooters. Ather has also set up home charging points at customers' homes and is focused on the seamless usage of charging pods by the customer, so that the pod serves its sole functionality of charging the vehicle.

The EV market is at a tipping point of transformation, and Ather Energy surely is a frontrunner when it comes to superior product design, functionality, and the overall experience with the ecosystem the company is building for its customers.

> Every year we get updates from Autodesk in the tools that we use. It is an everyday improvement. It just streamlines our process in a more efficient way. In terms of exploration too, like the colours, materials, etc., there is no dependence on the physical prototypes now, because these can be done digitally.
>
> **Swagath Rath**
> Design Manager, Ather Energy

AUTODESK.