Case Study

Harnessing the collective power of ARRK's Prototyping expertise, know-how and range of manufacturing solutions to deliver innovations of the future.

ARRK's Prototyping centre in Barcelona, Spain has held a long standing relationship with Elisava, Barcelona School of Design and Engineering over the years. Each year, students are required to complete a project and produce an exhibition model to showcase their ideas. So when this year's final year students from the "Undergraduate Degree in Industrial Design Engineering and Simultaneous Studies Programme" approached ARRK to help develop their concept, ARRK were only too happy to help these budding designers of the future.

Image courtesy of Elisava

Their concept was based around a rechargeable battery that could be used to power city scooters, which riders can share and use around the city. With charging stations located across the city, their concept involved riders calling in at roadside charging units to pick up a new fully charged battery whilst at the same time popping in the own empty battery into the recharging station before riding on. This "shared" scooter programme which allows riders "to hop on and hop off" as they travel around the city, also encouraged customer loyalty as the more riders used the scooters and exchanged "Onux" batteries, the more loyal points they would get.

With this vision in mind, the students wanted ARRK to help build a physical model of their concept so that it could go on display at their end of year show where lecturers, fellow students, sponsors and local business leaders could view them.

With time of the essence, ARRK set about helping the students, reviewing their CAD modelling and its suitability with some of the various 3d printing processes, materials and finishing options being considered. After discussions, a series of parts were built using ARRK's Stereolithography (SLA), Selective Laser Sintering (SLS) processes across its Spanish and UK prototyping centres. SLA Clear parts and SLS PA parts were swiftly built and shipped to our Barcelona team where they finished, assembled and painted to form the outer shell of the battery pack. With the students keen to get hold of the parts as soon as possible, ARRK were able to turn around parts from receipt of approved CAD and delivered in less than ten days.

With final preparations made by the students, the model battery was unveiled to visiting academics, fellow students and business dignitaries at an end of year show in Barcelona. We're delighted to report the event went well and their concept and model well received.

ARRK Barcelona's head of sales proudly shows off the rechargeable battery model at Elisava's Final Year Student Design Open Day

https://www.elisava.net/es/grado-en-ingenieria-de-diseno-industrial

Key Requirements / features -

Short project time scale

Project team support with CAD, process, material and paint selection

Using range of 3d printing technologies to build battery casing

Use of ARRK's European 3d printing expertise & capacity

Finishing, texturing, Paint & Assembly services

Image courtesy of Elisava

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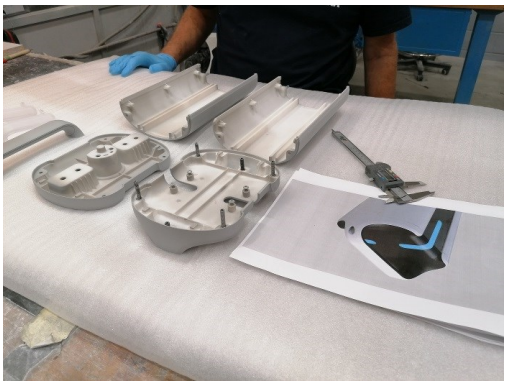
Case Study

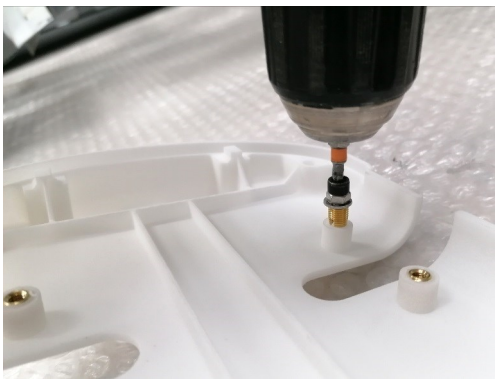
ARRK

SLA Clearvue Free parts

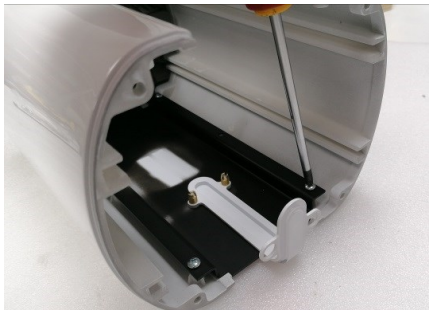
SLS PA built components.

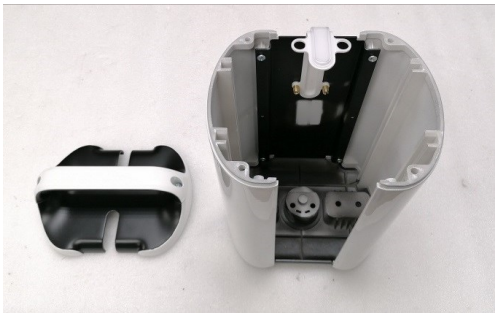


SLS threads added



Parts finished, textured, painted & assembled





Fully finished and supplied unit

For further information on ARRK's range of services, please contact:

ARRK Europe Ltd

Unit 11, Olympus Park, Quedgeley, Gloucester. GL2 4NF, UK

Tel: +44 (0)1452 727 700 Email: projects@arrkeurope.com

uk.arrk.com