



Design that delivers the right production process

Isansys Lifecare monitor housing

A classic start-up problem

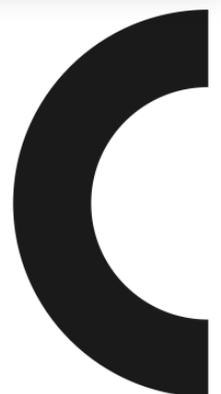
When we were initially approached by Isansys Lifecare to discuss the design of their patient monitoring system, we assumed it would be a conventional product design project. However, it soon became evident that they needed a solution for what is becoming an increasingly common problem affecting technology start-ups: how do you make small numbers of well designed, technically sound parts without paying for conventional tooling?

Specifically, they wanted to make trial batches of enclosures to house a standard Samsung tablet running their new software. They had tried getting parts machined from solid nylon and other approaches, but they were all either poor quality solutions, too expensive - or both.

Exploring options

Our suggestion was to look at the design of the housing at the same time as exploring how it could be made - focussing on manufacturing methods that would minimise tooling and production costs whilst providing maximum flexibility for change, as well as the highest possible quality result.

The housing comprised of two main components - a rear plate that supported and positioned the Samsung tablet and a front bezel that was the 'face' of the product (above, right).

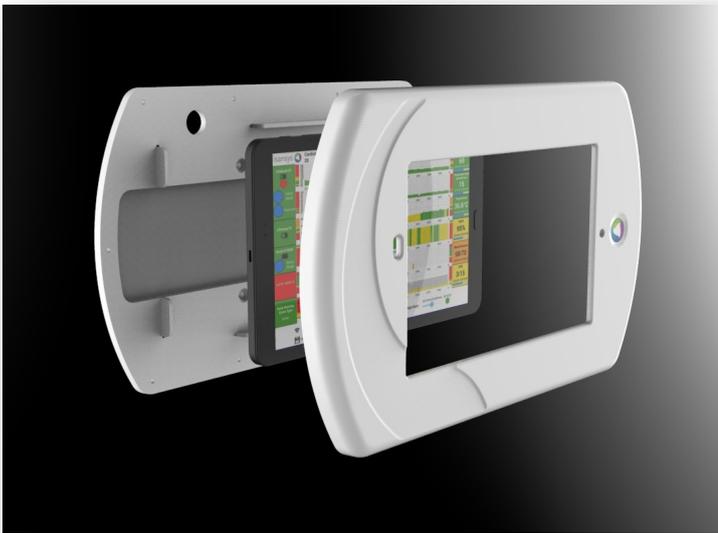




We explored various ways of making the front and rear parts, including machining and moulding techniques. Eventually we settled on machined sheet plastic parts for the rear plate and vacuum cast moulded parts for the front bezel. Making the parts using silicone rubber tooling means the tooling is inexpensive and can be modified quickly and easily.

Finalising the design

We designed the rear plate to hold the Samsung tablet firmly in place and provide access to the charging cable socket and on/off button. The front bezel went through a number of concept design stages and was designed to allow easy access to the programming button and camera. The final design of both parts was optimised to allow them to be made using low volume techniques (machining and vac casting), but also to move over to conventional high volume injection moulding when the software and product's trial phase was completed. This was essential to provide Isansys with manufacturing continuity.



Angela Gallego, Isansys' Head of Product Development comments:

"Our fantastic relationship with Crucible has enabled us to increase sales whilst at the same time reduce our costs. Crucible have helped Isansys come up with a solution to meet our volume requirements and, as a result, we have been able to capitalise on their experience, expertise and network of suppliers/connections, to help us further develop our first-class Patient Status Monitoring platform."

About Crucible Design

Mike Ayre established Crucible Design Ltd in 1990. Crucible works across all areas of product design and development, with an emphasis on meeting specific client needs, including sales improvement, cost reduction, technical innovation and the sourcing of manufacturing partners.

This focus on the commercial benefits of good design has generated an excellent track record of successful projects and the practice has also won a number of design awards for appearance, innovation and technical expertise.

