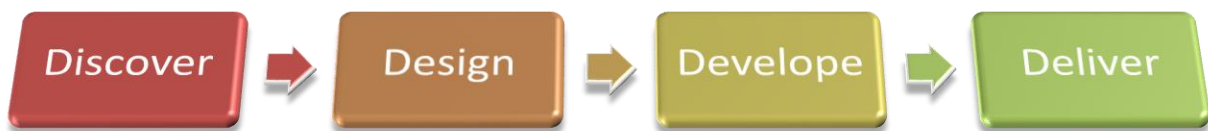


THE DESIGN PROCESS

This is a brief guide into the engineering design process that we use here at Redsoul Design. It can fit many industries and is tailored to suit each individual company / market or product. As a general rule, the more complicated something is, the more in depth the design process will be. For example:

Imagine comparing the design processes of a jet engine and a spoon. Both would follow the same steps of the design process (managed in different ways) in order to achieve the required outcome, but the more complicated jet engine would have many more steps and considerations than the simpler spoon. We like to keep our process simple – it's just easier and reduces time & overall cost.



The Steps.

Discover – Market research, customer focused exploring, information gathering. Etc

Design - Understand the ideas / problems, initial sketches and concepts, Viability, Pre-prototyping, rendering

Develop – Refining ideas, detailed concepts, prototyping

Deliver – Delivering the agreed outcomes of the project.

Generally, at Redsoul Design, we use the last three more than the first one. This is because clients usually approach us, having completed a large chunk of the discover stage.

Discover

The discover stage is all about research. Who, what, where, why, how and so on? Look at the problem / market that has caught your attention.

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Is your idea new? a variation on an old one? where will it be used? why is it needed? how much will it cost to make? how much will it cost to sell? what problem are you solving? where are you selling? Are there any specific standards that need to be applied?

These are some of the many questions you will be asking in this stage.

Redsoul design will also be asking you these questions (amongst others) in order to help you define a clear goal / outcome.

Design

This is the stage where the ideas / problems come together, and we form a basic outline of what the client has set out to achieve / solve with their ideas.

We look at what standards need to be applied and how, specific materials, critical dimensions etc so that we can start to build a workable design. This is also the stage where we define project outcomes (such as a drawing pack, a set of prototypes,) so that both Redsoul Design and the client know what is going to be delivered and when.

We will advise the client of potential manufacturing processes and their respective costings.

We will also start to apply many design principles such as DFM and DFA (design for manufacture / design for assembly), FMEA (Failure modes and effect analysis) at this early stage as it helps save time and money later on. Pre-Prototyping is a very useful here as the client will start to get a very clear idea of what their ideas / designs will look like.

Develop

This stage is about developing the ideas and concepts into viable products / deliverables. Using many of the same processes of the design stage, we constantly refine the design to get it to a final concept ready for client approval. Prototypes, testing, Photo rendering of 3d models are all key areas of this stage.

Deliver

It is at this stage that we present all the required deliverables to the client. The deliverables will incorporate all the requirements of the client and all of the agreed outcomes from the design stage.

It is important to remember that all stages are fluid...in the fact that each stage is tailored to the product / idea. Each stage is a constant feedback loop - essentially where we keep looking and refining the concept / idea.

The status of a project is constantly being reported back to the client, so that design changes and requirement can be added or removed as necessary.

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