

Split Model Testing

Design Method . Developing

Split Model Testing is a method for investigating specific features of a design without having to manufacture the entire prototype. It's particularly useful when developing a large or complex product that includes an important mechanism, connection or feature you're unsure about. By creating and testing smaller sections of your design first, you can identify potential problems early, make improvements and save time and material.

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1. Identify a specific feature or area of your design that needs testing. This might include the fit of a connector, the shape of a grip, the size of an opening or the strength of a particular joint. Focus on something you're unsure about or want to figure out.

2. Sketch or plan how you could isolate the selected feature for testing. Think about which parts of the design are necessary for the test and which can be left out. For example, if you're testing how a clip attaches to an object, you might only need to manufacture the clip mechanism rather than the entire product.

3. Make your test model and evaluate how well it performs. Choose a suitable manufacturing method based on the feature you're investigating, such as 3D printing, laser cutting or hand fabrication. Check whether the feature meets your design criteria and, where possible, involve your end user in testing.

4. Review your findings and make any necessary adjustments to the feature. Repeat the test if needed until you're satisfied with the results. You can then incorporate what you've learned into your main design before manufacturing a larger prototype.