



Design for Manufacturability

No matter what you're designing, it's important to involve your contract manufacturer's (CM) engineering team early in the process. The earlier you bring in your CM, the more time and money you can save on your project. Here's how your CM can help make your project more successful:

Right Parts, Right Tooling. How many times have you finally found a part that will work for your design only to learn your CM does not have the right tooling? There are many types of tools that can fit your project: hand tools, semi-automatic tooling, and fully automatic tooling. Each of these will impact the price and your labor costs. Hand tool costs can range from under \$100 to over \$1,500. Semi-automatic tooling is generally around \$3,500 and goes onto a \$10,000 press. The same tooling used for semi-automatic can generally be used on fully automatic wire cut and crimp machines that can easily cost over \$100,000. Tooling can have longer lead times than the part, and the tooling expense can quickly eat into your project's budget or be more expensive than the assemblies. Getting your CM involved early in the design process can save time and money by finding parts with ready-made tooling and the right equipment to fit your volume range.

Speed. If you find the right contract manufacturer to build your assemblies, you won't need to send them the complete bill of materials. The CM will help you find the correct parts and have factory direct relationships to bring an expert to you so you don't have to waste your time searching everywhere for parts that fit your specifications. While websites are getting better with parametric searches to help narrow down the results, you still need to know what you are looking for. No website can match an expert right in front of you with samples in hand for you to review.

Reduce redesigns caused by issues found down the road. Not all components are created equal. Some are unpopular and risk going end of life. Some have huge lead times once stock is depleted. Others have crosses that are half the price, which may lead to desired redesigns further downstream to save costs on your next generation project. Contact your CM to help choose the components that will fit your requirements and help reduce the risk of a redesign.

There are many articles online telling you what you need to do to design your assembly for manufacturing. Some articles even list up to 10 different items that you need to become an expert. Really the most important and only thing you need to remember is to call the experts at TLC Electronics early in your project. We will guide you through the rest.

Contact us today to save time and money on your next project.