



ADVANCED
ASSEMBLY

**WHY
EXPERIENCE
MATTERS**

TABLE OF CONTENTS

1. Custom Software

2. Been There, Done That

3. One Size Does Not Fit All

4. Quality is in the Details

5. Customers Are People Too

6. High-Tech Equipment for High-Tech Jobs



SMT ASSEMBLY FOR ENGINEERS
AAPCB.COM

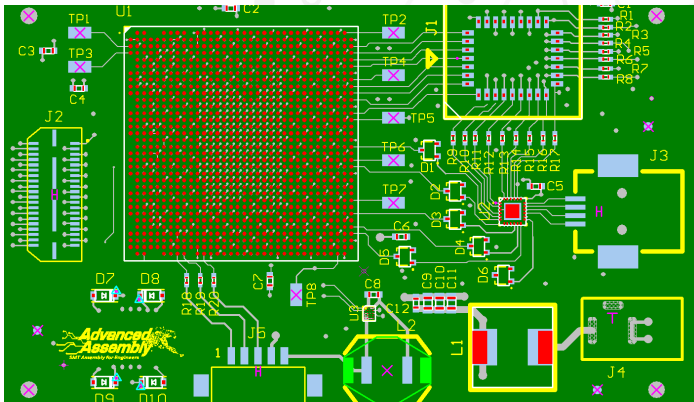


“THE ONLY SOURCE OF KNOWLEDGE IS EXPERIENCE.” - ALBERT EINSTEIN

Start-up companies are great when it comes to developing new mobile apps, but a lack of experience can be detrimental when assembling complex printed circuit boards. In fact, using an inexperienced company often means project delays, many unnecessary questions and boards that need multiple rounds of rework. Below are some important items to consider when determining how important experience is to you.



CUSTOM SOFTWARE CREATED BY ENGINEERS, FOR ENGINEERS



There are many PCB assembly software packages available today.

While they all have their pros, it is important to select a partner that uses software developed specifically to meet the needs of PCB designers.

For example, Advanced Assembly's BOM Builder creates a virtual prototype of your board, making it easier to identify and correct errors and saving you costly respins and rework time.

A design-for-assembly software also should verify part fit and rotation. Other potential errors a reliable software program should catch include:

- Missing polarity markings
- Package to footprint fit
- Part spacing
- BOM and XYRS comparison

Remember: Having your design checked by a PCB assembly partner prior to assembly should NOT be an extra charge.

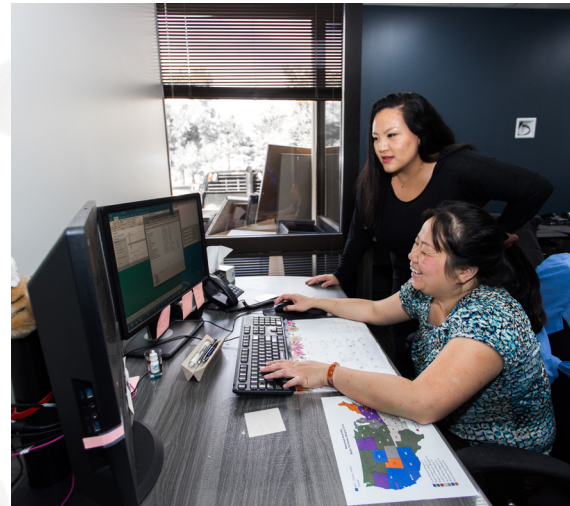


BEEN THERE, DONE THAT

Just like the Farmers Insurance commercial tagline, “we know a thing or two because we’ve seen a thing or two,” the importance of hands-on experience can not be understated. Experienced manufacturers don’t experiment on your boards because they’ve already faced and overcome nearly every obstacle.

And if they face a new challenge, they have processes in place to figure out solutions quickly without bothering you with needless questions.

“Startups might be great for new phone apps., but you shouldn’t trust them with your prototype or production PCB assembly projects.”



ONE SIZE DOES NOT FIT ALL

Every project is unique. For this reason, you need a manufacturing partner that is flexible enough to accommodate your individual needs. Inexperienced shops typically have a single process used for all projects. Asking for something outside these parameters is met with resistance or downright rejection.

Additionally, companies that market the lowest prices do so by providing the lowest type service. Again, projects with specifications outside standard parameters are either turned away, subject to higher-price premiums, or assembled with poor quality due to lack of experience.





QUALITY IS IN THE DETAILS

Start-ups are so focused on completing basic logistics, they often fail to pay attention to the details. This can negatively affect the quality of assembled boards.

Instead, quality should be built in at every stage of the process. For example, passives should be measured before placement, consignment parts must be checked against the BOM, and each department should be responsible for checking the quality of the previous department's work.

One important quality metric to evaluate is defect percentages. Defect percentages are calculated by looking at parts shipped vs. parts returned for defects. Advanced Assembly's monthly goal is < 2% defect, which we consistently meet or beat. Our performance in this area is 2 to 3 times better than other companies in the business of delivering quick-turn prototype PCB assemblies.

Finally, experienced pcb assembly shops are not afraid to offer quality guarantees, which state that they unconditionally stand behind their workmanship.



CUSTOMERS ARE PEOPLE TOO

Service is about more than boards and parts. It's about knowing who your customers are and how their ideas will change the world. Experience has taught us how satisfying, and fun, it is to work alongside our customers to help bring their products to life. Working with your PCB assembly partner should be a fun and rewarding experience too!



HIGH-TECH BOARDS REQUIRE HIGH-TECH EQUIPMENT

Machine assembly is a must for today's complex circuit boards. For this reason, you need a manufacturer with the most advanced assembly equipment.

Examples of “must-have” equipment include:

- Automatic Jet Paste Printers
- High-Speed Pick & Place Machines
- Leaded and Lead-Free Reflow Ovens
- Programmable Washers & Dryers
- Automated Optical Inspection
- 3D X-Ray

ADVANCED ASSEMBLY was founded to help engineers assemble their prototype and low-volume PCB orders and has never strayed from this focus. Based on years of experience within the printed circuit board industry, Advanced Assembly developed a proprietary system to deliver consistent, machine surface mount technology (SMT) assembly 1-5 days. It's our only focus. Advanced Assembly is the original and industry-defining quick-turn PCB Assembly service. We have assembled over 40,000 unique designs in the last decade and we're always looking for more. We take the hassle out of PCB assembly and make it easy, so you can spend time on other aspects of your design.



20100 E. 32nd Pkwy. #225 | Aurora, CO 80011 | www.aapcb.com | (800) 838-5650