



Volume 22 • Issue 3

NEWSLETTER

# Leading the Way In Electronics



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# Dave's World

## DECEMBER, 2024

As 2024 comes to an end, I look back with gratitude at what an incredible year it has been.

Our sales over the past two years are up almost 70%. We have added a 3rd SMT line to increase capacity and help speed up delivery dates. We've added customers from a variety of industries who all have critical use/environment products that must be reliable. We added ISO 13485 Medical Certification to our existing AS 9100 and IPC QML certifications.

Our Training Department has kept up with new IPC revisions and kept our training current as well as developing new (non-IPC) lesson plans customized for customers.

Our STI team is stronger than it has ever been and I couldn't be prouder of them. We added Suzanne and Felicia (quality), Jason (training), Edrick and Bree (manufacturing), and Josh (training materials), to our team in 2024 and all bring experience and new perspectives to an already strong group. We were able to do two major promotions internally with AJ Orames moving to Manufacturing Manager and Jason Appleton moving towards Training Manager as Pat Scott prepares to retire in January 2025. AJ is already doing a fantastic job with Manufacturing and I expect the same from Jason in Training. Diana and Mark continue to make my life easier and allow me to step away more and more.

I mentioned Pat Scott is retiring in January. Pat has been with STI almost 24 years and has done a wonderful job guiding our Training Department through many changes but always upholding the STI standard we demand. I've actually known Pat since she was an instructor at China Lake in the early 1980's. We are going to miss her but her impact will always be part of STI. I wish her all the best enjoying her grandkids and life in general.

Looking forward to 2025, I have big expectations for STI. We've been checking off items from our capital expenditure list and still have many items in the works. We'll continue to add capacity and capabilities which allow us to take care of our customers and maybe even add a few more.

Please take a look at our group photo on the cover. Defying all odds for the 42nd consecutive year, we've gotten better looking. Even as optimistic as I am, it is hard to imagine this repeating in 2025 but I have been wrong before.



## David Raby

President/CEO  
draby@stiusa.com

Also, please take a look at the photo of the scoreboard at Jordan-Hare Stadium (Auburn University). That was taken at their first game after Veteran's Day. That's my Dad in the 2nd photo on the bottom row. I really appreciate Auburn honoring Veterans the way they did and especially including Dad.

We had a fantastic year and that was only because of supporters like you. I cannot thank you enough but do know that you are appreciated and not taken for granted. I wish you the happiest of holidays, a Merry Christmas, and a happy, healthy, and prosperous 2025.



*David Raby*  
President/CEO



# UP CLOSE and PERSONAL



Twin Britney

## Interview with Brianah Robinson

**Job Title:** SMT Assembly Tech

**How long have you been part of STI Electronics?** Since August 5th, 2024

**What do you do for STI?** Soldering

### Just For Fun

**Tell us about your family.**

I am lucky to have a big family who are all very close. I have two siblings, an older brother Justin, and an identical twin sister Britney. My twin and I are inseparable, if we are not together, we are on the phone. It helps we live only five minutes apart. I am also very lucky to have a wonderful fiancé, Kasey. We have been together for 11 years and on January 16th, 2025, we will be celebrating our 12 amazing years together through so much. We have been through hardships, and we have always been there to build the other back up. Kasey was there for me during the sudden passing of my mom, and I with Kasey when two younger sisters passed. Having a strong bond with family is a value to both of us.

**Tell us about your pets.** I have three pets, a beautiful white cat named O'Malley, a French Bulldog/Beagle mix named Lemon, and a Chihuahua/terrier mix named Peaches. They are all a handful but worth all the stress and more.

**Do you have a favorite place to visit?** I can't say I have a favorite place to visit because I plan on seeing so much more of the world before I choose a favorite. I dream to see Italy, Spain, Scotland, Africa, Europe... everywhere and anywhere.

**What's your favorite type of music/song/artist?** I love all music, given what mood I'm in you can find me listening to anything. Lo-Fi, Jazz, Rap, Old country, Latin Guitar, Alternative, Rock, you name it.

**What is your favorite movie or TV show?** My favorite movie is The Lost Boys, a love shared and passed down from my mother, I can watch it anytime any day and it reminds me of her and the nights we used to snuggle up and watch it.

**What's your favorite meal/food?** I love some southern food and some seafood!

**Tell us about any hobbies that you enjoy.** I love to sing and play piano, I also enjoy drawing, crafting items such as dream catchers, walking sticks, herbal remedies etc. I love nature outings where I can pick flowers, get grounding, and one of the most rewarding feelings, the clean up around whatever area leaving the place in a better state than what I found it in.

**What is your favorite motto or quote that summarizes your approach to life?** Grumpy Wizards make TOXIC Brew. This is what I tell myself to remember the law of attraction, when you channel an emotion, the channel works both ways, if I am negative all the time my actions will be negative and in turn attract more negativity. Cause and Effect, right? If I'm grumpy, my actions are grumpy, in turn what I produce is toxic.

**What's one fun thing to know about you?** I speak in fluent movie quotes.

**What's your favorite thing about working at STI?** The environment and the opportunity to grow, I have already grown so much here and am soon to grow even more very soon, that makes me feel very grateful and in the right place. The environment is one of light attitudes and solidarity.

**What is your favorite non-profit to support and why?** St. Jude. To know that I can help even in a small way, such a needed and selfless foundation keep doing what they are doing, is a feeling not easily replaced.

**Anything else you'd like to share with your team members?** While here at STI I have been welcomed and appreciated, you don't find that everywhere, so I just want to thank all of you for being who you are and making my step into a permanent stress free and no brainer.



BREE & KASEY



BREE'S MOM & DAD



LEMON & PEACHES



O'MALLEY



MERRY  
Christmas

*As the holiday season approaches, we want to extend our heartfelt gratitude for your continued trust and partnership throughout the year. Your support has been invaluable to us, and it's been a pleasure working with you.*

*Please note that our offices will be closed from December 23rd and will reopen on January 2nd, allowing our team to spend time with loved ones and recharge for the new year.*

*We look forward to serving you in 2025 with renewed dedication and enthusiasm. Until then, we wish you a Merry Christmas and a prosperous New Year!*

# HAPPENINGS

## *Congratulations*

During the second part of 2024 we have had several anniversaries to celebrate. We would like to congratulate each one on achieving this anniversary with us! They have all worked hard for this accomplishment and we truly appreciate their dedication.



**Troy • 7 Years**



**Rob • 6 Years**



**Edna • 15 Years**



**Pam • 18 Years**



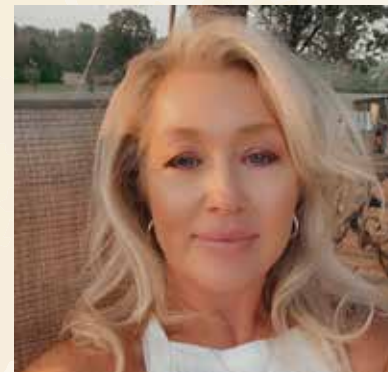
**Diana • 27 Years**



**Kim • 5 Years**



**Donna - 25 Years**



**Robbie - 5 Years**



**Jenny - 1 Year**



**K.P. • 14 Years**



**Jeff • 11 Years**



**Teresa • 7 Years**



**Rob • 3 Years**



**Lisa • 11 Years**



**Jean • 5 Years**



**Shawn - 6 Years**



**Bobby - 16 Years**

# THANK YOU!



TO OUR

# TEAM MEMBERS



# • MERRY • Christmas



*As the holiday season is upon us, I wanted to take a moment to extend warm wishes to you and your loved ones. On behalf of the entire STI Operations family, we send heartfelt greetings.*

*May this Christmas bring joy, peace, and cherished moments to you and your family. We appreciate the trust and partnership you have bestowed upon us throughout the year, and we look forward to serving you with the same dedication and excellence in the coming year.*

*If you have any questions, concerns, or if there's anything we can do to enhance your experience with us, please don't hesitate to reach out. Your satisfaction is our top priority.*

*Thank you for being a valued part of STI Electronics, Inc. Wishing you a Merry Christmas filled with love, laughter, and the warmth of the holiday spirit.*

Thanks,

**Diana Bradford**

Vice President,  
Operations/Training Resources







**Christy**  
Executive Assistant



**Sheila**  
Corporate Secretary



**Donna**  
Receptionist



**Erick**  
Job Cost Analyst



**Scott**  
Accounting Manager



**Robbie**  
Marketing Coordinator



**Roger**  
Facilities Manager



**Jean**  
Facilities Maintenance

Merry  
Christmas

## Engineering Services/Manufacturing



**Mark**  
VP, Engineering Srvs./Mfg.



**A.J.**  
Manufacturing Manager



**Troy**  
Systems Engineer



**Caroline**  
Analytical Lab Mgr.



**Jeff**  
Engineering/Microelectronics



**James**  
Customer Account Manager



**Norma**  
Quality Manager



**Jeff**  
Engineering Services Logistics Mgr.

# Lead Formation and Solderability



**Mark McMeen**  
VP, Engineering Services/  
Manufacturing  
[mmcmeen@stiusa.com](mailto:mmcmeen@stiusa.com)



**Caroline Anthony, Ph.D.**  
Analytical Lab Manager  
[canthony@stiusa.com](mailto:canthony@stiusa.com)

Solderability is the ability for a metal to take solder and form an intermetallic (IMC) compound. Solderability is the foundation of a reliable solder joint. Soldering anomalies can form due to numerous reasons and in this article we will discuss one possibility, lead formation artifacts. Two types of soldering anomalies related to solderability are nonwetting and dewetting. Nonwetting is described as the inability of solder to form an intermetallic bond with the base metal and dewetting is when solder coats the surface but then recedes, or pulls away, leaving behind areas with mounds of solder and areas with very thin solder coverage.

Lead formation is done to properly shape the component leads to be mounted to the PCB. However, the lead formation processes can sometimes leave artifacts that impact the overall solderability of the lead. The images below show two examples of lead formation artifacts. Figure 1-2 displays cracks, or fracturing, in the plating on the lead before soldering and after soldering. Cracks in the plating can lead to exposure of the base metal, opening it up for oxidation to occur. In Figure 2, it shows that there was no inconsistent solder coverage on the area with the cracked plating. Cracks in the plating at this location of the lead are caused by lead formation. Solderability defects are observed on other areas of the lead. Nonwetting or dewetting can also be caused by oxidation, contamination, corrosion, too low of a soldering temperature, or insufficient flux. In Figure 3-4, we see another soldering anomaly due to lead formation. In the formation of the leads, the leads were cut to shape the leads at the sides. This process left behind tool markings from that cutting which inhibited sufficient wetting to occur above the cut line, due to insufficient plating of the lead along the sheared edge that formed the lead. Proper lead formation processes and proper plating of the lead are required to ensure proper wetting and solderability of the component leads.



Figure 1. Before Soldering



Figure 2. After Soldering

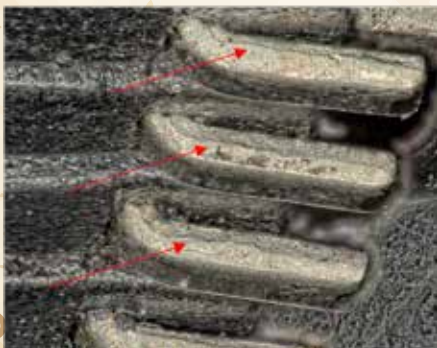


Figure 3. Before Soldering

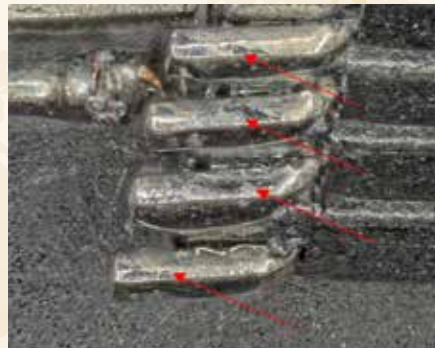


Figure 4. After Soldering

The STI analytical laboratory has the capabilities to test and evaluate samples for solderability. Please contact Mark McMeen [mmcmeen@stiusa.com](mailto:mmcmeen@stiusa.com) or Caroline Anthony, Ph.D. [canthony@stiusa.com](mailto:canthony@stiusa.com) for more information.



# MERRY Christmas AND HAPPY NEW YEAR

Warmest greetings from the training team at STI Electronics, Inc.! As we celebrate the joyous season of Christmas, our Training Resources Division extends heartfelt wishes to you and your loved ones. May this festive occasion be filled with moments of happiness, love, and togetherness. We appreciate your commitment to growth and learning throughout the year, and we look forward to continuing our journey together in the coming year. Wishing you a Merry Christmas and a prosperous New Year filled with success and new opportunities.

Thanks,

**Pat Scott**

Training Services Manager





**Frank**  
Lead Master Instructor



**Michelle**  
Customer Service Manager



**Jason**  
Master Instructor



**Rob**  
Master Instructor



**Travis**  
Master Instructor



**Jenny**  
Master Instructor



**Melissa**  
Customer Service Rep.



**Brian**  
Master Instructor





**Contact Information:**  
**Pat Scott**  
**Training Services Manager**  
[pスコット@stiusa.com](mailto:pスコット@stiusa.com)

## STI Training Services Department Update

This past year has been very busy for STI's Training Services Department. We appreciate all of you who have attended courses at our facilities in Houston, TX, and Madison, AL, as well as those who have attended courses throughout the US.

### IPC News:

- The new 2025 IPC Policy and Procedures are posted in Edge and CQI. The effective date is January 1, 2025. No major changes have been made to the document. However, there is a slight increase in pricing for all IPC Certification Programs.
- IPC-A-610J and J-STD-001J course materials are now available from the Edge and Certification Portal. If you need to be certified to the J-STD-001J Space Addendum, the training materials are not currently available.

Typically, the course curriculum becomes available 6-8 months after the document has

been released. The 001J Space document has not been released yet but should be available soon. For those of you who need the space addendum certification, STI will continue to offer the J-STD-001H and H Space Revision courses until the J-STD-001J Space training materials become available.

- The J-STD-001 course is one of the most popular courses STI teaches. However, it can be challenging for beginners due to the lack of foundational soldering skills and knowledge. For those new to soldering, attending a basic course first would definitely provide the essential skills and knowledge needed to succeed in more advanced courses like J-STD-001. STI offers a Fundamentals of Soldering course, that can help develop a solid understanding of the knowledge and techniques needed.

### Topics Include:

- Component identification (through-hole/SMT)
- Tools and equipment
- Materials
- Preparing to solder
- Wires/terminals Hands-on soldering
- Through-hole Hands-on soldering
- SMT Hands-on soldering

Visit STI's website at  
[www.stiusa.com](http://www.stiusa.com)  
to check on upcoming classes.



24  
*wonderful*  
YEARS

## Retirement Announcement Pat Scott, STI Training Services Manager

As of January 31, 2025, I will be retiring from STI Electronics, Inc. It has been an incredible journey over the past 24 years, and I feel very fortunate to have been part of such a supportive and innovative organization.

I am grateful to have had the opportunity to work with so many talented individuals and to have built lasting relationships with many of you.

Looking ahead, I am confident that STI's Training Services Department will continue to thrive. You will be in excellent hands with Jason Appleton, who will be stepping into the role of Training Services Manager. Jason has over 15 years of experience in the aerospace manufacturing industry. He has worked as an instructor for over half of his career, teaching IPC and NASA standards. He also helped maintain and develop training materials

for internal courses and created the course materials for electronics training programs in several local high schools in northern Alabama. Additionally, he has worked as a supervisor on the cable harness production floor where flight hardware was built for various space programs.

STI has some of the most experienced and seasoned instructors. This can make a huge difference in the quality of training you receive.

Thank you all for your support over the years. I wish STI and each of you continued success in the future.

STI values your business and looks forward to a fantastic 2025.



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