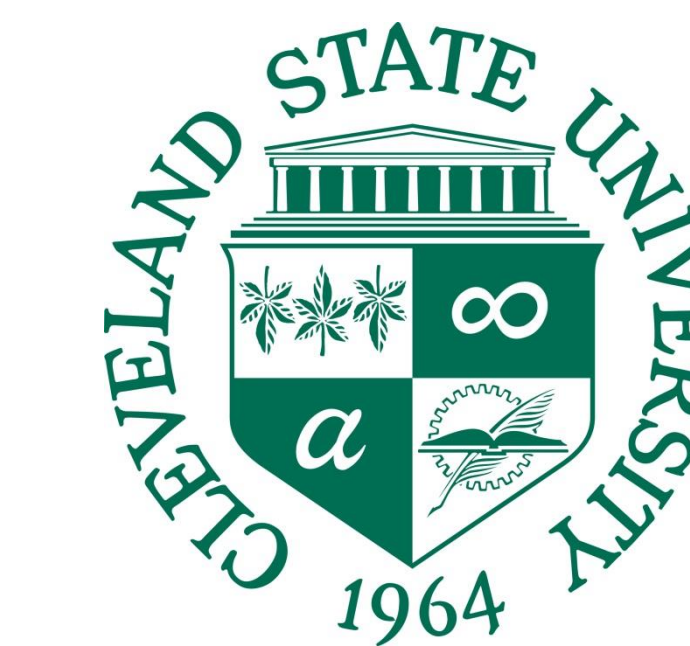


Test Engineering at TT Electronics

Adam Katsaras, Cleveland State University



Choose **Ohio** First

INTRODUCTION

From May 2021 to January 2022, I interned at TT Electronics in Perry, Ohio as a Test Engineer. The internship was secured through a listing on LinkedIn and only one interview was conducted before the offer was extended.

LEARNING OBJECTIVES

- Learn the process of how testing is setup and performed on various products (circuit boards).
- Create test procedures and documentation for circuit boards to be used by the company.
- Troubleshooting/debugging circuit boards that are experiencing issues.

RESPONSIBILITIES/ACTIVITIES/SPECIAL PROJECTS

- Use and various types of electrical test equipment to debug boards.
- Find specific boards with high rates of false failures and determine the cause of it followed by finding ways to prevent them.
- Equipment calibration for specific tests.



Figure 1. TT Electronics manufacturing facility.



Figure 2. TT Electronics logo.

APPLICATION OF COURSE CONTENT

- Basic electrical laws for determining what proper current/voltage should be at certain electrical elements.
- Technical Writing for documentation.
- Digital Systems helped with the coding aspects of testing.
- Senior Design helped with collaboration with other engineers.

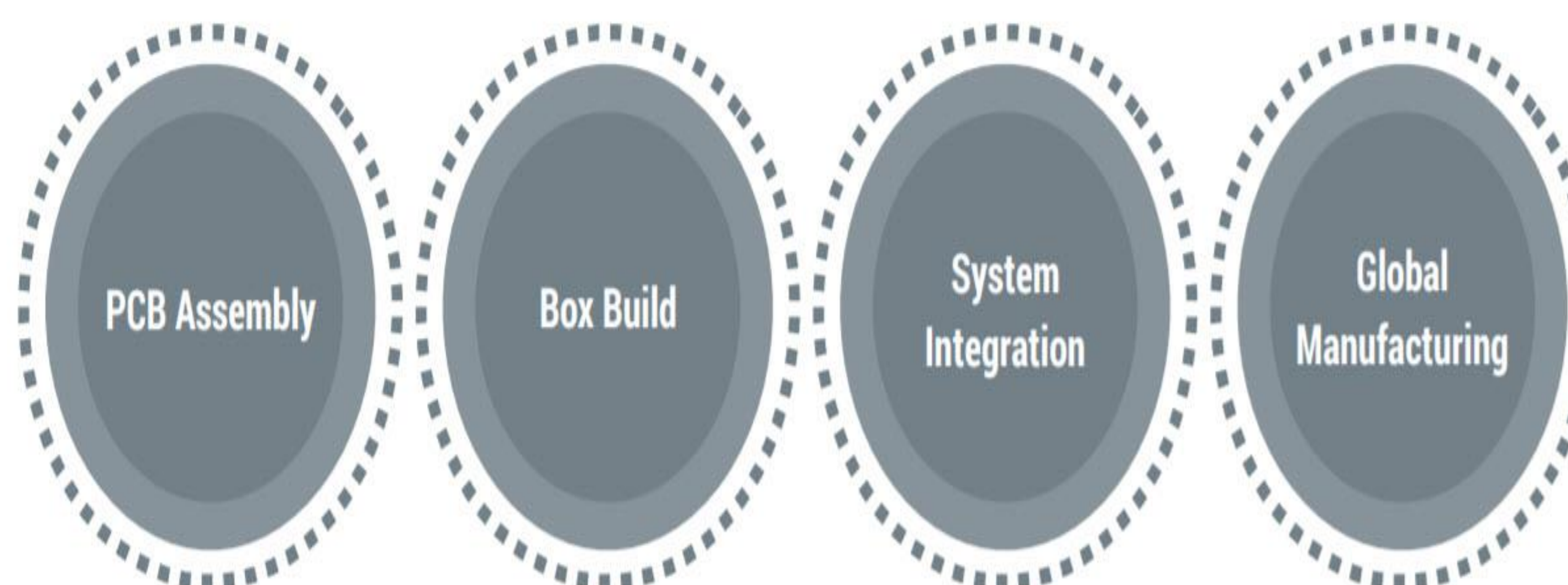


Figure 3. TT Electronics creates a variety of products for different customers.

LESSONS LEARNED

- Hands on experience with electrical engineering.
- Programming in LABVIEW.
- How to use electronic test equipment.
- Writing as an engineer for technical documents.

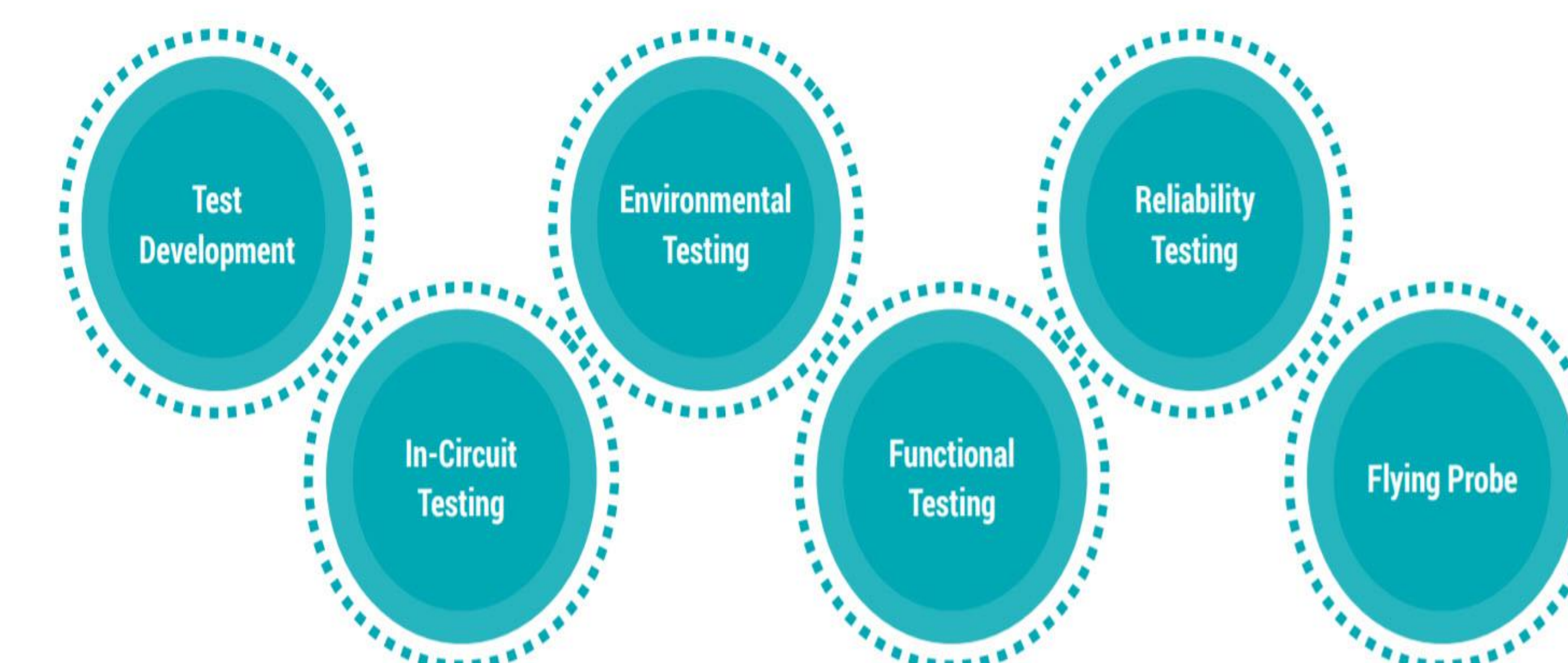


Figure 4. Different testing methods offered for customers.

FUTURE CAREER GOALS

While I enjoyed the experience of test engineering, especially the hands-on aspects of it, I'm planning on going into the field of power systems engineering, however I am grateful for the experience of the internship as in addition to the technical skills it gave me, it also make me much more proficient in communication especially learning how to talk with customers.

ACKNOWLEDGEMENTS

I am grateful for the staff at TT Electronics for offering me the internship position especially Bruce Hurd the test engineering manager for being my engineering mentor. I am also thankful for my professors at Cleveland State University teaching me the knowledge necessary to work through an engineering position, as well as the Choose Ohio First coordinators for keeping me on track throughout my internship.