

## Sandia National Laboratories Internship Learning Objectives

I am working for Sandia National Laboratories in Albuquerque, New Mexico in the Summer Product Realization Institute for Nuclear Weapons (NW SPRINT), which is a design program focused on increasing agility and facilitating the development of novel concepts and ideas on a compressed schedule. Over the course of the summer, each design team will successfully design, fabricate, and test a functional device. Each year's design challenge is relevant to Sandia National Laboratories' core mission and offers opportunities for student interns to partner with technical staff mentors, researchers from across the laboratory, and other student interns.

The NW SPRINT program focuses on using advanced manufacturing technologies to innovate and revolutionize the products that Sandia National Laboratories delivers. NW SPRINT interns are placed into collaborative teams with a staff mentor. Separate teams from across the lab compete in the SPRINT challenge to develop the best design. The NW SPRINT program focuses on using advanced manufacturing technologies, such as additive manufacturing or 3D printing, to achieve higher performing design and to push the limits on technical capabilities.

The team is advised by Josh Kuhn and Karl Walczak, and further advised by Audrey Morris-Eckart (Manager 2616). I am working on a team of 5 Engineers, and my responsibilities and learning objectives throughout the summer include:

- Working through the design process for product realization
- CAD design of components and assemblies
- Analysis and iteration of parts and assemblies
- Teamwork and troubleshooting to improve designs
- Physical assembly and testing of products
- I plan on learning the CAD software Creo
- I plan on building my engineering and troubleshooting knowledge

I am extremely excited and fortunate to have the opportunity to work for an amazing national laboratory performing real life hands-on design work and analysis to generate a product. I am excited to experience engineering outside of a classroom and in an R&D environment. This internship will be a great learning experience both personally and professionally from technical engineering, to collaboration and networking aspects.

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Monty Bruckman II

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Audrey Morris-Eckart

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