



ENGINEERING AND DESIGN IN PRODUCT DEVELOPMENT

2024 WorkWonder Apprenticeship Program

ABOUT

What does it take to make a product?

This Deep Dive will give apprentices experience in bringing an idea to reality by exploring and learning about the engineering and designing process involved in creating a product. Apprentices will have the opportunity to jump into an existing project and help see it to completion, and engage in creating a product entirely of their own design.

WHAT YOU WILL LEARN

Apprentices will learn and implement a variety of product development methods and practices. We will implement design thinking techniques to ideate and conceptualize our ideas. We will then use digital tools, such as CAD and program management apps, to visualise and refine ideas. Finally, we will test products through prototyping and redesign processes. In addition to these learning experiences, throughout our work together we will develop operating procedures and norms that lead to effective collaboration for our team goals.

A close-up photograph of a person's hands holding a pen over a document. The document has sections labeled 'SKILLS' and 'EDUCATION'. The background is blurred, showing a laptop screen.

JOB DESCRIPTION

This apprenticeship requires apprentices to participate and contribute to all parts of the product development process described above. This will require careful documentation of the work done, including any created designs, reflections, critiques, or captured feedback. At each meeting, apprentices are expected to be on time and prepared to share their progress. Additional workplace skills that are helpful include the ability to work well independently or on a team, as well as familiarity with Chat.GPT, Spreadsheets, Microsoft Teams, Google Docs, or any CAD programs. In addition to the product development requirements, apprentices will also develop tailor SOPs and protocols for our work settings and conditions. Lastly, apprentices are expected to present and share their experience at a final WorkWonder event or showcase.

Expectations:

Although apprentices can bring their own ideas to develop, we will engage in the product design process as a team effort. As such, apprentices are expected to come with open minds and a willingness to take on challenges. Collaborative teamwork operates at its best when people share ideas and invite others to push their thinking. To create this type of space, people need to feel safe and encouraged, so maintaining this working environment for all members of our team is a constant priority. Final expectations are for apprentices to commit to attending all meeting times, and communicating in advance to a Deep Dive lead if they cannot attend one and coordinating with any collaborators in the design process to maintain expectations. Apprentices are expected to maintain a work schedule that allows us to meet deadlines in our work. They should be prepared to commit to attending weekly meetings and approximately 15 hours of independent work a week and attend office hours should there be any need for additional support.

Meeting times

MONDAY

●
1:00–2:30PM
Bayha Group meeting

TUESDAY

●
60–90 minutes
Deep Dive session

WEDNESDAY

●

THURSDAY

●
60 minutes or as needed
Office hours

FRIDAY

●

We will have other meetings as necessary, in particular when preparing to publicly share our learning.

Weekly activities

The product development process is iterative, and our weekly meetings will reflect this. The general agenda detailed below provides a routine that creates a framework for our collaboration.

General meeting agenda:

- Welcome and connections/announcements/team building
- Updates and review of project progress
- Goal setting
- Focused collaborative design and teamwork
- Share out, reflections and documentations
- Next steps
- Farewell/closings

Weekly activities

General weekly agenda:

Week 1: Introductions, ideation and conceptualization of products, teaming up.

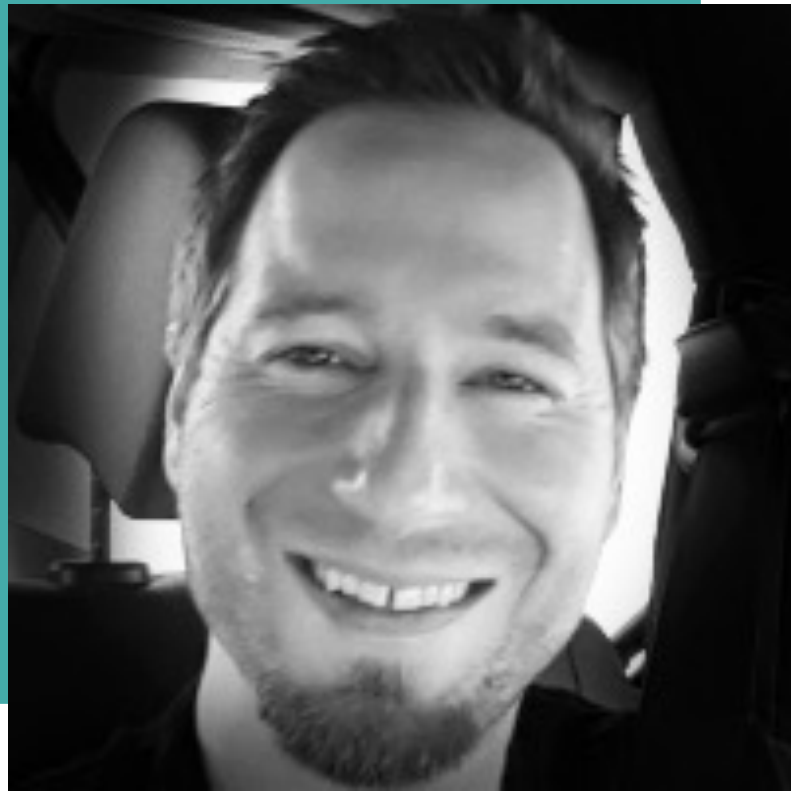
Week 2: Refining ideas, visualization, initial mock up.

Week 3: Initial mock up share, critique, and tuning; finalized ideas, initial engineering and design plans.

Week 4: Engineering and design plans tuning; final engineering and design plans; prototyping.

Week 5: Share and curate work. Prepare for final share out.

Week 6: Publicly Share Learning.



ANDREW LERARIO

Deep Dive Lead

Hello, I am Andrew, co-founder of Blue Dot Education. I'm excited to get the chance to lead this Deep Dive because it deeply connects to who I am as a lifelong educator. I feel that learning through hands-on work is the best way we find identity and meaningfulness in the world around us. I really enjoy working collaboratively with others to transform ideas into reality. The creative capacity of young folks never ceases to amaze me, and I'm looking forward to partnering with apprentices to make cool products in this Deep Dive.

BAYHA
GROUP



CONTACT

Email : connect@bayhagroup.com

Phone : +1 858 633 7538

www.bayhagroup.com

www.workwonder.io