

## CASE STUDY

Maddison Taylor, Apprentice Machinist at NEAA Member, Turnmill Engineering, started her apprenticeship in August 2024.

The NEAA caught up with her in February 2025 to discuss her journey so far and the skills she has developed during her first six months as an apprentice.



### What made you decide to pursue an apprenticeship rather than a different path in automotive/advanced manufacturing work?

I chose an apprenticeship because it gives me the chance to learn so much more than just a job. Instead of only studying theory from a textbook, I get hands-on experience and a real understanding of the full manufacturing process. It's a great way to develop my career, especially in a sector like this, where there are so many exciting opportunities to grow. The support from my team at Turnmill has been amazing - everyone is willing to help, and it really feels like one big team.

### Could you describe a specific project or task you worked on that helped you grow or develop your skills?

One of the most valuable projects I worked on was reverse-engineering a Marelli drawing. I had to match the photo with the technical drawing, identify the dimensions, and then reverse-engineer the component. Since Marelli is a high-profile client, I also had the opportunity to visit their site and meet their engineering and production teams. Seeing everything in context really helped me understand how the wider system operates - it was a great opportunity to develop my skills and get a deeper insight into real-world manufacturing processes.

### How has your mentor or supervisor helped you grow in your apprenticeship?

Our Operations Director, Andrew Howe, has been a great mentor, giving me tasks and walking me through every stage, so I always know what's expected of me. There's a strong culture of continuous improvement here, where no question is a wrong question, and the whole team is always willing to help. Rachel Skeoch, Director of Truenorth, has also been a huge support, providing both industry-wide and personal mentoring. She invites me to manufacturing events and takes the time to sit down with me every month to go through my personal development plan, which has really helped me stay on track and grow in my apprenticeship.

### What have been some of the most challenging aspects of your apprenticeship so far, and how have you worked through them?

One of the biggest challenges has been getting to grips with the finer details of engineering, especially measurements and adapting to different engineering systems. Converting between imperial and metric, understanding tolerances, and knowing how tool changes can affect offsets were all tricky at first. But I've worked through these challenges by asking my team for help - they're always willing to share their knowledge and give me useful tips to remember for the future. Their support has made a big difference in building my confidence and improving my skills.

### Are there any specialised areas of the automotive/advanced manufacturing industry you're particularly interested in exploring in the future?

I'm particularly interested in reverse engineering, technical capabilities, and the design aspects of manufacturing. I want to explore how design is incorporated into the wider industry and how it influences innovation. I'm also really drawn to the subsea sector - there are a lot of opportunities in our region, and it shares many similarities with the automotive industry, especially in terms of new technologies and developments. The constant innovation in both industries really excites me, and I'd love to be part of that in the future.

### How would you summarise the key benefits of an apprenticeship?

An apprenticeship gives you hands-on experience and a real understanding of the full process, rather than just learning from a textbook. You develop practical skills, gain industry knowledge, and get to work alongside experienced professionals who support your growth every step of the way.