


### Title of DTI Project

Automate CAM Programming for Waterjet cutting

### Role Profile/Job Description

 Digital Internship Opportunity: Automate CAM Programming for Waterjet cutting Join a forward-thinking engineering team to develop a smart solution that automates how customer orders are turned into CAM programs for waterjet cutting. This project is all about cutting repetitive workload, saving time, and freeing up skilled staff for more valuable tasks. What you'll be doing: Research and test ways to automate the setup of cutting jobs in IGEMS software Map how orders are processed now and spot where automation can help Build a prototype system that takes in customer order data and outputs ready-to-use CAM files Test your solution with real data and work closely with staff to refine it You'll need: Programming skills (Python or C# preferred) Some experience or interest in CAD/CAM tools and file formats (e.g. DXF) An analytical mindset – able to spot patterns and turn them into logic Good communication – you'll be getting feedback from the people who'll use what you build Why it matters: This is a chance to make a real impact by reducing manual effort, improving consistency, and exploring smarter ways to work using automation and potentially AI. Your work will support a long-term shift toward digital efficiency in manufacturing – a key goal of the Made Smarter programme.

### Duration of internship

300 hrs

### Business Overview

The Client is an engineering firm founded in 1959, headquartered in Altrincham, Greater Manchester. The company specialises in designing and manufacturing solutions for vibration control, acoustic isolation, thermal isolation, and precision levelling. Their products and services cater to both industrial and construction sectors, aiming to enhance the performance and longevity of machinery and structures by mitigating the adverse effects of vibration and thermal bridging. They operate a waterjet cutting process, using IGEMS CAM software to programme jobs based on incoming customer orders. These orders often contain repeated sizes within a batch but vary between batches depending on customer specifications. Currently, a skilled programmer manually translates order details into IGEMS programmes. This project seeks to explore and develop a method of automating this process to improve efficiency and reduce repetitive workload.

### Skills required

- Programming (Python or C# preferred)
- Understanding of CAD/CAM workflows and file formats
- Ability to parse structured/unstructured text data
- Strong analytical and problem-solving skills
- Good communication for user feedback and documentation



## Digital Technology Internship – Role Profile

### Location

Greater Manchester

### Start date

Summer/Autumn 2025

### Reference Number

1074