

## Role summary

This position is responsible for producing machined parts by programming, setting and operating one or more computer numerical control (CNC) machines, from high precision 3 axis to a 7 axis robotic arm. Using our drawings and computer models you will create and modify CNC programs using software including Autodesk Powermill and RhinoCAM. You will also set up tools, load materials and carry out the efficient machining of components in a timely manner.

There will be a requirement to be able to work independently and as a part of an effective team. The position requires a high degree of responsibility, discretion and confidentiality. You will also have a flexible, friendly and positive approach and the ability to work on your own initiative.

## Role Definition

**Job Title:** Modelshop CNC machinist

**Reporting to:** CAD Support Manager and Assistant Head of Modelmaking on a day to day basis and ultimately to Head of Modelmaking

## Responsibilities

- Responsible for the manufacture of CNC machined components from 3D design files.
- Use CAD software to assess, modify and arrange 3D models before using software including RhinoCAM or Powermill to create CNC programs for machining.
- Responsible for production quality and meeting deadlines of projects as allocated by your manager, this will include liaising with external companies when required.
- Use initiative to create manufacturing processes for a vast range of components, out of various materials.
- Ensure all modelshop data is logged, filed and updated correctly
- Liaise with model making teams and other departments to make sure the desired result and finish is achieved.
- Work to the Health & Safety (H&S) requirements
- Set up machines as trained, in a safe and secure manner. Position and fasten work pieces appropriately for all machining tasks.
- Calculate and monitor machine tool speeds and feeds, checking work pieces to ensure that they are properly lubricated or cooled.
- Maintain safe operations by adhering to safety procedures and regulations.
- Ensure all work is carried out using the relevant personal protective equipment ('PPE')
- Recognize characteristics of materials used such as metals, plastics, modelboards, and timber
- Select the appropriate tools, machine, and materials to be used in preparation of machinery work.
- Calculate dimensions and tolerances using knowledge of mathematics and instruments such as micrometers and Vernier calipers.
- Clean and lubricate machines, tools, and equipment to remove grease, rust, stains, and foreign matter.
- Maintain equipment by completing preventive maintenance requirements; following manufacturer's instructions
- Understand machine setup instructions, technical operating, service or repair manuals
- Observe and listen to operating machines or equipment to diagnose machine malfunctions to determine need for adjustments or repairs Report on a timely manner any misfunctions, maintenance requirements or safety concerns to the relevant instance.

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- Design fixtures, tooling, or experimental parts to meet special Modelmaking/engineering needs.
- Use hand or power tools
- Plan stock inventory by checking stock to determine amount available; anticipating needed stock; placing and expediting orders for stock; verifying receipt of stock.
- Assist with unloading and promptly storing deliveries to workshop
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- Confer with modelmakers, architects, designers and engineers to exchange technical information by telephone, in written form, e-mail, or in person.
- Provide training, teaching and coaching to others — identifying the educational needs of others, developing training programs and teaching or instructing others to improve their knowledge or skills.
- Provide consultation and advice to Modelmakers and expert advice to management on technical, systems, or processes
- Develop constructive and cooperative working relationships with others at all levels, and maintain them over time.
- Ensure Modelshop rules are adhered to
- Thorough knowledge of and compliance with F+P procedures and standards
- To contribute, or otherwise assist, as required
- Ensure the workshop is left in a tidy manner at the end of each day
- Equity, diversity & inclusion (EDI) is a core priority. To support and champion the embedding of this focus as a collective workforce responsibility, EDI should be integrated, where relevant, into all workstreams

## Qualities and skills required

### Essentials

- Have an Industry recognised diploma or relevant industry experience
- Good understanding of CAD/CAM computer software
- Study CAD drawings, sample parts and engineering information to determine methods and sequences of operations needed to fabricate parts, and determine part dimensions and tolerances.
- Knowledge of estimating sizes, and quantities; or determine time, costs, resources, or materials needed to perform machining
- Experience on documentation by transcribing, recording, storing, or maintaining information in written or electronic form.
- Think Creatively — Developing, designing, or creating new applications, ideas, relationships, systems, or procedures, including artistic contributions.
- Ability to prioritise
- Analyse information and possible results to choose the best solution and solve problems.
- Analyse data or information identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.
- Keeping up-to-date technically and applying new knowledge to your job.
- Empathy with a creative environment
- Due to the nature of the position and the requirement to meet deadlines there will be a requirement to work additional hours as necessary

### Desirable

- Ability to prepare working sketches for the illustration of product appearance/fabrication.
- Knowledge of robotics systems technology Specialist in one or more of the following programs: Powermill, AutoCAD, Microstation, Rhino, RhinoCAM
- **Multi Axis machining experience would also be beneficial.**

This description reflects the core activities of the role but is not intended to be all-inclusive and other duties within the group/department may be required in addition to changes in the emphasis of duties as

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required from time to time. There is a requirement for the post holder to recognise this and adopt a flexible approach to work. Job descriptions will be reviewed regularly and where necessary revised in accordance with organisational needs. Any major changes will be discussed with the post holder.