



The
University
Of
Sheffield.

AMRC
Training Centre

Successfully promoting degree apprenticeships to prospective students

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Agenda

- The AMRC, who we are and what we do.
- Apprentice case studies.
- Working with SMEs in the region and beyond.
- Engaging with prospective apprentices.
- Our impact

AMRC

- Part of the University of Sheffield specialising in translational research and skills for manufacturing for industry.
- Since 2013 equipped more than 1700 apprentices with the knowledge, skills and behaviours to succeed in manufacturing.
- Developing talent for more than 350 SMEs across the region and beyond.



Gabriella

Gabriella, Stanley Black and Decker

- Gabriella is a second year tool maker working for Stanley Black and Decker.
- She is responsible for maintaining press, punch and die tools and making new parts.
- She created a saving of £26k by reprocessing worn carbide discs. The discs cost £220 each, Gabriella's re-use has reduced the cost to £20 each saving £1600 a month
- She also repaired damaged socket chisels saving £10 per chisel and speeding up production time.



Jordan

Jordan, Mason Pinder Toolmakers, part of Polypipe

- Jordan is a fourth year apprentice who started as an Advanced Apprentice and is now on the HNC programme.
- Jordan, with colleagues, modified a robotic cell that inserts rubber seals into plastic moulded fittings.
- An external company quoted £300k to do the work. Jordan and his team completed the task for £60k saving £240k.
- They also eliminated the need for the manual insertion of the seals, saving a further £40k per year.



Emma

Emma, Niftylift

- Completed her Advanced Apprenticeship, and is now a Degree Apprentice.
- She was a regional winner in the 2021 National Apprenticeship Awards.
- She achieved a reduction in lost-in-production parts costs by 80% saving an average of £29k per month.
- She has also reduced internal and customer non-conformance issues from 20 to 5 days.



Niall

Niall, Pryor Marking Technology

- Niall was Pryor Marking's first Advanced Apprentice.
- For his Project he looked at the assembly time of a standard product that was notoriously difficult to assemble right first time – with a yield of 70%
- He recommended changes to the ergonomics of the production cells, providing operators with the tools and parts within the cell and changes to some of the tooling.
- After two years the right first time yield is 100%, the time taken to make the product has been reduced from 3.5 to 1 hour saving £50k a year.



Oliver

Oliver, MGB Plastics, Rotherham

- MGB Plastics is the largest producer of council wheelie bins in the UK.
- Oliver completed his Advanced Apprenticeship and HNC.
- Oliver reduced council crest changes time from 10 minutes to 34 seconds saving £137k a year in production process costs and increasing capacity.
- He is now part of a team, appointed by the MD, working to improve production efficiency.



Working with small and medium sized businesses

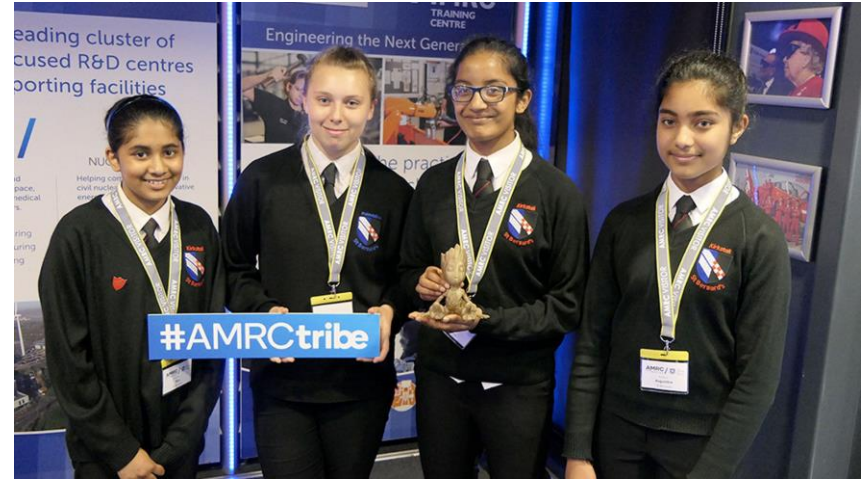
- The AMRC works with around 200 SMEs each year, and we have worked with more than 350.
- The AMRC also works with industrial partners to solve manufacturing and production problems – we have created a manufacturing ecosystem within the region.
- Our block delivery of practical skills means that apprentices are safe and productive from day 1 at work.
- Tribosonics refer to their apprentices as their Future Leaders because that's what they expect from their apprentices, particularly because they adapted to the changing business environment, presented by Covid, so readily and helped staff to innovate around those changes.
- We respond to industry needs when it comes to our apprenticeship offer.
- Winning the Egnuity Training Partner of the Year award in 2021 voted by the engineering industry

Encouraging young people into engineering and manufacturing

- We work with a number of schools, take part in outreach activities and offer Open Days.
- The AMRC also works with employers – we go to careers fairs and schools with employers so that prospective apprentices can ask employers questions and find out what manufacturing and engineering is really like.
- There are two interesting projects that we have been working on: AMRC Tribe and Primary Engineers.

AMRC Tribe

- The engineering industry is predominantly occupied by males.
- The Tribe is a close-knit supportive environment to nurture girls' interests in STEM activities in an environment outside of school and social pressures.
- They can get involved in STEM activities with like minded young women.
- We want to open up a new world of opportunities for young women and eventually provide UK industry with a more diverse and talented workforce.



Primary Engineers

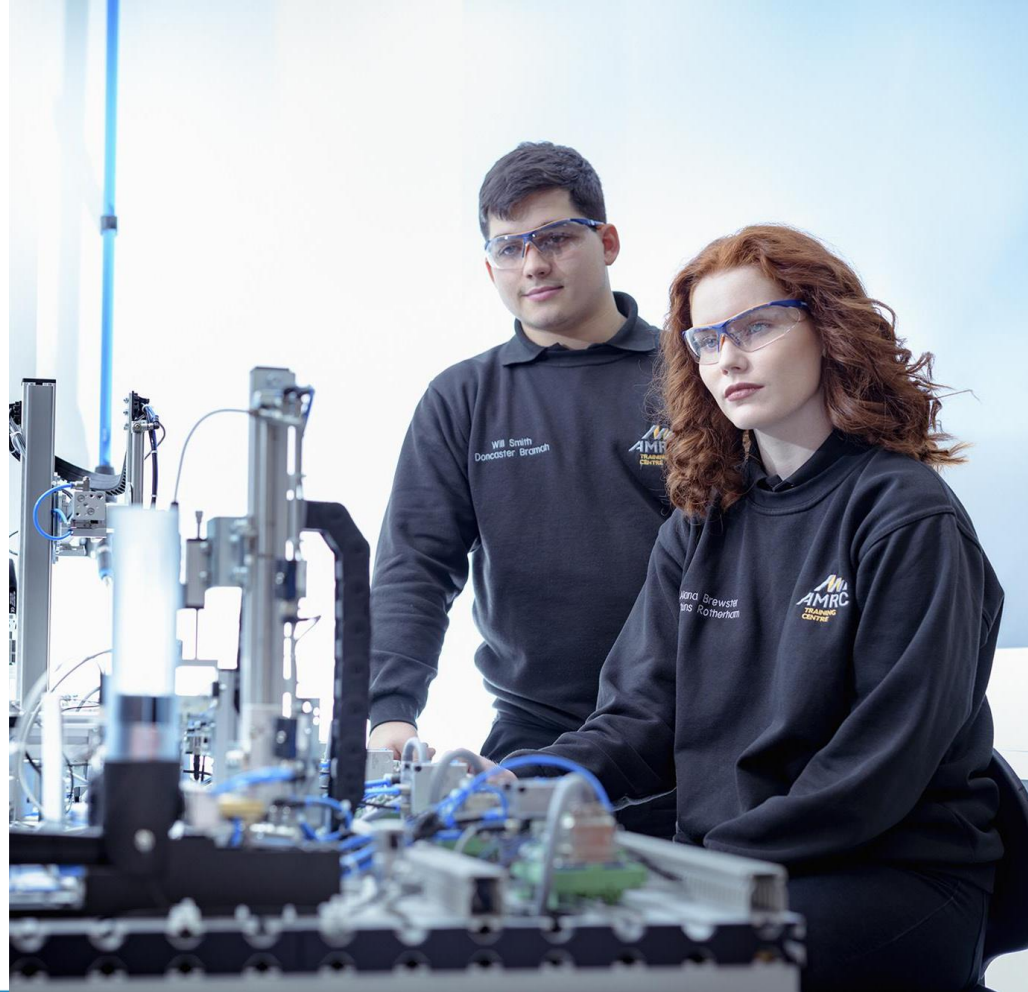
- We work with Primary Engineers in two ways.
- To support Primary school teachers to introduce practical activities into their curriculum eg the Structures and Mechanisms with Basic Electrics workshop.
- We want to encourage Primary School children to become problem solvers. In the first year we worked with 10 primary and 4 secondary schools in the region.
- We run a competition for Primary School children to find a solution to a problem. The winning idea is prototyped by AMRC Engineers.





Curriculum Development

- Working with individual companies to provide what they need eg McLaren and to enable incoming investment in the region.
- Working with manufacturing organisations eg the Confederation of British Metalformers to provide and develop the apprenticeships that their members need.
- Anticipating future needs eg Nuclear Scientist and Nuclear Engineer standard.
- We can demonstrate that our curriculum is having a positive impact.
- Gives prospective students choice, and career potential.



The AMRC's impact

- Our success results from our single focus on manufacturing, both in terms of the translational research and apprenticeships.
- This has enabled a manufacturing ecosystem to develop where apprentices are learning, and confident to take their ideas to work and apply them.
- Creating a virtuous cycle of employer confidence in apprenticeships and the willingness to allow apprentices to continue to develop and progress to higher and degree apprenticeships.
- Facilitating inward investment into the region because of the education and training we are able to offer and deliver.







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