

Name: Catherine MacDonald **Age:** 23

Background:

Catherine did A-levels in Maths, Mechanics, Physics and Chemistry. She went on to study Engineering at Cambridge University, specialising in Mechanical Engineering. Before university Catherine took a year out working for Ricardo Consulting Engineers, who design and develop internal combustion engines. Catherine now works for Jordan Grand Prix in Silverstone. In her spare time she races motorbikes and skydives.



What sort of work do you do?

My interest in automotive engineering grew during my time working for Ricardo Consulting Engineers. I was involved in a wide range of fascinating projects that included modifying engine designs to give more power without causing overheating problems, engine testing and vehicle drivability testing.

For my fourth year project at university I worked in a team of seven to design a small racing car. Jordan Grand Prix sponsored this project and I got three months work experience with them. I enjoyed the challenge of the job and the project so much that I went back after I graduated and I am working for Jordan now.

I work in the Composites Department as a designer. My main job is to design parts of the Jordan car, mainly those that are made of composite materials such as carbon-fibre-reinforced-plastic (CFRP). To do this properly I have to work with other designers, race mechanics and the laminators who manufacture the parts.

I spend most of my time using computer aided design (CAD) packages and doing calculations. Sometimes I am in other areas of the factory brainstorming design solutions with colleagues and occasionally I attend testing sessions at race circuits.

What do you like about your work?

The Jordan car has to be continually improved at all times. I enjoy the challenge of designing parts to be stronger and lighter than before, and coming up with ideas for a more competitive car. It is very rewarding to be part of a team working towards the same goals, and it's hugely satisfying to watch the Jordan car out there, racing.

What's the worst bit?

It can be disappointing if the Jordan cars don't finish a race due to a crash or mechanical failure. The team shares the disappointment but we focus on improving for the next race.

What do you want to do in the future?

I enjoy the broad scope of the work I'm involved in, and the dynamic atmosphere. I look forward to developing my design and management skills to progress in my career in motor sport. I also hope to win some motorbike races myself!