

Student Presentation of a DIS Placement at Nissan Technical Centre Europe

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This case study highlights from a student perspective the benefits of undertaking a Diploma of Industrial Studies (DIS) placement in industry. (Information taken from PowerPoint slides)

Background to student

Name – Steve Walker

Degree Program – Automotive Engineering (MEng)

Degree Year – Placement Completed After Part B

Placement Company – Nissan

Location – Nissan Technical Centre Europe, Cranfield Bedfordshire

Department – Upper Body Engineering

An introduction to Nissan

Worldwide

- Nissan was established in 1933 and is now present in most major automotive markets throughout the world.
- As a manufacturer Nissan has 24 production facilities within 21 different countries, producing 2.5 million vehicles per annum.
- Nissan employs 120,000 people worldwide.
- In 1999 Nissan and Renault agreed an alliance making the 4th largest automotive group in the world.

Nissan Technical Centre Europe and my department

- Nissan Technical Centre Europe, (NTCE,) was established in 1988 and initially based in Sunderland and Barcelona, but with close links to the Nissan Technical Centre in Japan.
- Early projects included the Micra and Terrano II.
- In September 1991 NTCE moved to the current site at Cranfield in Bedfordshire.
- NTCE is responsible for new vehicle development, including the highly successful Qashqai and life cycle management for all European models.

Throughout my time at Nissan I work in DS6 section which has two main functions, these are as follows:

- Nissans global leader for anti-theft solutions.
- Design responsibility for both of the types of back door for a new commercial vehicle, which is yet to be launched.

Throughout my time at Nissan I was primarily involved within the design project, however I also supported the anti-theft engineers

My first day and further training

- On my first day at Nissan I was given the necessary safety briefings which were directly applicable to my job and I was given a tour of the entire facility.
- Furthermore, I was introduced to everyone in my section, allocated a desk and given my first few introductory tasks.

After being at Nissan for approximately 2 months, I was enrolled on a three week full time CAD training course. To include training in the following areas:

- Component modelling.
- Creating assemblies and storing the data correctly, according to the Nissan standard procedures.
- Technical Drawing.

I was also given further training on a further CAD data release process and storage system, when new software was released during my year with Nissan

My primary responsibilities

When working within a design department, the majority of the year is allocated to a number of digital lots. Digital lots require CAD storage of the entire vehicle, to enable manufacturing and assembly the time to check the design and ensure it can be produced.

My personal responsibilities were to all the French Back Door trim components. This includes;

- locks and locking system
- hinges
- check links
- seals
- glass

Bench marking

Competitor benchmarking is an important part of the design process, to ensure that your new product will be competitive.

I organised a number of benchmarking activities including a set of door seal studies and a packaging of door components study.

Further work undertaken

At times I also helped the anti theft team, by performing a number of different tasks:

- I helped with Pre-Thatcham evaluations and then assisted in the documentation of the results.
- I also learn to perform basic locking logic tests on vehicles and gathered data on foreign markets, prior to the team visiting that specific area of the world.

Some of my other tasks were fault finding exercises for warranty concerns, which included finding the route cause of a window regulator screech and leaking into the passenger compartment.

Throughout the year, I was also involved in a number of cost reduction activities, designed to maximise the vehicles profitability without reducing the perceived quality.

Overview

- I have held a key role in the digital design phases for the development of a new vehicle, working with colleagues and suppliers from throughout the world.
- Completed further projects based on quality or cost initiatives.
- Assisted my colleagues in achieving their targets.
- I became a respected engineer within my department.

On a more personal note, I thoroughly enjoyed my time on placement at Nissan and the experience has been greatly beneficial in my development as an engineer.

Benefits

When you consider doing a placement many people will inform you how you will benefit from the experience, typically in the following ways:

- You will gain an appreciation for the industrial environment.
- It will allow you to place your subject in context.
- You will earn a salary.
- Become more attractive to employers when you graduate.

From my experience all of these aspects are true, however the most important thing I gained was confidence in my ability. This has enabled me to be more pro-active in group work and write all my coursework with greater belief in what I am reporting. In turn this has significantly improved my exam grades, once again making me more attractive to graduate employers.

