



**Student:** Dermot O'Brien,  
Southampton University

**Placement:** Tranquility  
Aerospace

**Role:** Software Electronic  
System Programmer

*"I learned a lot of skills and met a lot of people to add to my network. I got offered a full-time job and a 2% share in the company."*

### What is the subject of your PhD?

Using Monte Carlo computer simulations to analyse the type of plots you would get by adding a new type of quark to your model. I then compare these plots with the experimental data.

### Why did you decide to do a placement?

I took part in the GRADnet Winter School at Culham and really enjoyed the task of building a CubeSat that could join with other CubeSats to form a swarm with a non-toxic propellant that could be used around the International Space Station (ISS).

### Describe a typical day on placement:

There was no typical day, some days it was doing proposals to try and get money; using Photoshop to design an event poster or flyer; wiring up the electronics for the control system of the rocket; programming the control system of the rocket ; sawing wood for our rocket model; doing computer simulations to find out the maximum altitude or drawing circuit blueprints so that another intern could come along and continue my work. I also built the website for the company using HTML5 among other things and spent time just getting done what needed to be done. In a small company you just have to work on everything which is interesting as you see all aspects of the business.

### What skills and knowledge do you feel you have learned during the placement?

Everything I mentioned in the paragraph before I had never done before and had to learn on the spot.

### How do you think doing a placement has benefited you for the future?

I learned a lot of skills and met a lot of people to add to my network. I got offered a full-time job position and a 2% share in the company. It also looks good on my CV and I can get a good reference.

### What advice would you give to a PGR student who might be interested in seeking a placement?

Just do it, will be fun and a great experience, you can also start thinking about what life would be like outside academia and start to choose a possible future path for yourself by seeing what types of jobs you enjoy, instead of falling into the first job you get given. You can explore and really find a job in an area you enjoy. Why just take one placement when you could take many?

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