



RCF Sponsored Student Success

In our June 2016 issue we had an In Focus feature on the Radio Communications Foundation. This month we have news of one of their recent success stories.

Every year the Radio Communications Foundation (RCF) sponsors two students under the Arkwright Trust scholarship scheme. The scholars are selected from the hundreds of successful scholars who have been through a rigorous selection process involving an examination, a project and an interview. Once they have secured a scholarship, the Arkwright Trust link them up with sponsors who can best help them with their A-level studies and/or future careers. Those who cite radio, satellites, electronics and similar as their key interests are referred to the RCF. The RCF offer them the opportunity to experience amateur radio and attempt to arrange suitable work experience, for example with Surrey Satellite Technology or Vodafone.

One of the current scholars was part of a team that won the 'best team' award at a university hosted science competition. **Ben Raven** from Dr Challoner's Grammar School, Amersham picks up the story:

*"At the beginning of the year myself and five other students, **Charlie Manning** (who is also affiliated with Arkwright), **Caleb Alhadeef**, **Serena Ozturk**, **Suzie Murray** and **Saffy Truman** entered the Young Innovator of the Year awards competition. After much deliberation, we settled on our project, a small self-sufficient robot designed to monitor soil conditions in sub-Saharan Africa, with the aim of advising subsistence farmers on how best to maximise crop yields. The robot, around the size of a small dog, would roam around a plot of land marked by GPS markers, taking regular soil samples and testing for nitrate levels, water concentration and acidity. The robot would then compare this against a preinstalled database of*



Ben Raven (3rd from the left) and his winning school team.



Steve Hartley GOFUW with current RCF Arkwright scholars, Roseanna Devos 2E0SHH and Elliott Marshall who was one of the successful candidates at the National Radio Centre.

crops, selecting the optimum crop for the conditions at hand. Following countless meetings, conducted over many mugs of tea and coffee, a name was decided, Tortobot, and our project was set in stone.

"Now came the not insignificant challenge of designing our wildly ambitious project, with hours spent researching things such as patents and available products. After a few false starts involving stationary probes we settled on a moving rover. After further more 'heated discussions' (read arguments!) we settled on a tracked vehicle (much to the annoyance of our graphical designer who had the task of modelling the machine). With the design finalised and a short video

made, our design was sent off and then began the waiting.

"Following several weeks of waiting as the judges sorted through nearly a thousand applicants, we received a letter containing our invitations to the awards ceremony. Naturally we were all ecstatic, with ice cream being the chosen celebration for the group. A few weeks later we all piled into the school minibus and set off for Harper Adams University in Newport, one of the country's leading agricultural universities.

"We were greeted on the huge campus by too many tractors to count and, naturally, a life-size model of a cow. After a brief tour, we were taken into one of the lecture halls and waited in anticipation.

"Despite stiff competition we were nominated for best team, winning the Judges Choice Award for Presentation due to the fantastic work of Caleb in the 3D modelling of our machine.

"This was a fantastic end to a fantastic year of opportunities and experiences, many of which wouldn't have been possible if not for the ongoing support of the RCF and Arkwright."

Ben will be starting university in 2017 and clearly has lots of potential.

Two of the RCF's other current scholars are licensed radio amateurs who helped out at the National Radio Centre at Bletchley Park earlier this year when the RCF hosted a day of radio activity. Fifteen Arkwright scholars were provided with copies of the Foundation Licence textbook two weeks before the visit. They were guided through the Foundation Practical Assessments by a team comprising RCF Trustees, RCF scholars and RSGB volunteers. Thirteen of the group passed the exam the same afternoon but not before working **Bob VP8LP** in the Falklands for their very first HF contacts. Bob very kindly sent them all individual QSL cards. One of the group has gone on to study for the Intermediate exam and another gave a presentation about amateur radio to his school science club.

These are just two examples of how RCF donations are used to help our young engineers and scientists and how the charity is trying to spread awareness of radio communications in the 21st century. The Trustees are always looking for new projects to support. There is more information about the RCF and its grant making policy on its website (below). On the other hand, if you would like to help out, there is a donate button there too.

commsfoundation.org