

Using LEGO® Education to create practical programming at the University of South Wales

University of
South Wales
Prifysgol
De Cymru

The University of South Wales was looking for a practical, flexible platform for programming exercises, particularly in their robotics modules. Christopher Tubb, Senior Lecturer, explains:

"LEGO was chosen as part of our lab and teaching equipment as it provides a great deal of flexibility and functionality for the cost associated. The staff and student familiarity with LEGO were also seen as an advantage. Generally for the exercises, the students are presented with a set configuration or prebuilt devices and asked to programme it to achieve specific tasks.

Usually, we ask students to work in pairs when using LEGO for developing code to share their experiences. As the tasks progress, we find and encourage, communication throughout the group as they share their frustrations and successes in completing the task.

We also use LEGO in student projects; the nature of LEGO makes it an ideal platform for students who are not studying electronics or mechanical engineering to build and experiment with prototype devices which might otherwise have been costly and time-consuming for them to create.

We intend to use our LEGO to provide students with a friendly tool to develop ideas. We also find that we discover more ways in which LEGO can be integrated into our teaching practice as we and the students continue working with it."

"LEGO is familiar. It is not intimidating to students. Everyone likes LEGO. Classes using LEGO are fun".

Christopher Tubbs
Senior Lecturer - University of South Wales

Key benefits of LEGO Education

Familiarity

"Students' familiarity with LEGO helps them to engage with the exercises; the platform is not intimidating and we hope it makes the exercises more fun. Certainly, practical sessions do buzz when the students are using the robots. There was some concern that using LEGO might in some way be seen as trivialising the exercises, but this has not been the case".

Easy to deploy

"LEGO is easily deployed at a practical level in sessions. We can have multiple sites and many students working at once; it is the right physical size for pairs of students to work on is safe and reliable".



Learn more about how LEGO Education can bring STEAM learning to life at:
getech.co.uk/LEGO

