

technocamps

Inspiring | Creative | Fun
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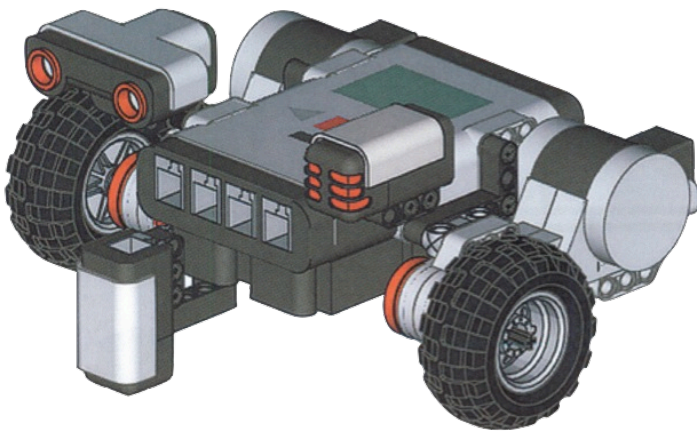
www.technocamps.com



LEGO Bowling

The LEGO Mindstorms NXT is a programmable robotics kit which can be used to create many different robots which can complete many different tasks. Not only do the participants get to build and program the LEGO Mindstorms robots to complete some tasks they also get an insight into robotics and programming fundamentals.

Within the workshop we focus on essentials of robotics hardware and consider how different robotics hardware parts relate to the human body. We also examine in detail the three main programming constructs namely; basic instructions, iteration and conditional statements. To do this we use a range of tools including an innovative iPad application called Cargo-bot where you must program a robotic arm to move around boxes from an initial set up to a given final set up.



Skills

- Problem Solving
- Communication
- Improving Own Learning and Performance
- Working with Others
- ICT
- Numeracy
- Creativity

Key Learning Outcomes

- Construct a LEGO Mindstorms Robot
- Program a LEGO Mindstorms Robots
- Reason about Problems and Develop Possible Solutions
- Understand Programming Constructs

Workshop Outline

- About the LEGO Mindstorms Robot
- Building the LEGO Mindstorms Robot
- Robotic Programming with Cargo-Bot
- NXT Programming

Why Technocamps?

Technocamps is an exciting project that provides free workshops to young people on programming, robotics, game design, app development and much more... It is about getting young people (11-19) in Wales excited about Computer Science and STEM and challenging them to think about the world around them in a different way.