Wednesday 7 Feb 2024
St. Francis of Assissi

Programme of Activities

10.00 – 10.15   Arrival in our Lab & Welcome
(including security induction & account registration)
10.15 – 11.00   **Workshop 1: Introduction to AI (Tommy)**
11.00 – 11.30   **Giant Sorting Network** (outdoor activity)
11.30 – 12.00   Lunch Break
12.00 – 12.45   **Workshop 2: Cyber security (Emily)**
12.45 – 13.45   **Hands-on Workshop: Lego EV3 drives the warehouse**
13.45 – **14.00**   Closing Talk

All workshops take place in Lab 3 of the George Holt building.

Information about the Activities

Introduction to AI

Artificial Intelligence is a field of computer science that reshapes how we think about computers. Understanding AI is paramount in today's rapidly evolving society.
Starting with Alan Turing creating the 'Imitation Game' in 1950, the field of AI has mostly grown exponentially, evolving how we think of computers from a tool to a machine that can think, make its own decisions and, much like Turing envisioned, imitate a human.
This lesson aims to provide a foundational knowledge of how AI has developed since Turing's vision of a future in 1950.

Giant Sorting Network

In this outdoor lesson, pupils will play the role of the "compute nodes" in a parallel sorting algorithm. They will experience first-hand how parallelism speeds up computation, but also makes it more challenging to reason about programs.

Cybersecurity

Cyber Security is a rising industry within computer science today and many companies are looking to hire more people within the field as they are looking to protect their companies and the data they hold in the most secure way possible. Within this lesson students will have an insight into what cyber security and cryptography is and they will get to see and complete some basic and more complex ciphers in teams.

Lego EV3 Drives the Warehouse

Robots managing large warehouses are one of the many examples where automation helps humans to solve a task faster and cheaper. For this to be effective, robots need to be at least partially autonomous, i.e., able to sense and react to the physical world without (constant) human intervention. In this hands-on lesson, pupils program Lego EV3 robots to follow a line, avoid obstacles, and ultimately navigate a warehouse safely and autonomously.