



## **We're looking for engineers to volunteer in our new Formula 1 Engineering Lightyear Labs!**

### **About [Lightyear Foundation](#)**

Lightyear Foundation is a registered charity that opens up the exciting world of science and technology for disabled children and young people. We work to break down the barriers to disabled children participating in STEM (science, technology, engineering and maths). We inspire and engage a wide variety of children including those with Down's syndrome and cerebral palsy, autistic children, visually impaired children and those with long-term health conditions such as cancer. Some children in our settings are non-verbal or use communication aids and assistive technology.

### **About [F1 in Schools](#)**

F1 in Schools is an international STEM competition for school children. Students design and build their own F1 cars, test them in a smoke-trace tunnel and improve them before taking part in a race day – launching their cars at high speed across the school hall. In 2021 we ran a pilot delivering accessible Formula 1 Engineering Labs in Special Schools to children with Special Educational Needs and Disabilities. This project is building upon the pilot.

### **Formula 1 Engineering Labs**

We have teamed up with F1 in Schools to design and deliver an accessible and inclusive Formula 1 Engineering Lab in special schools, introducing the world of race car engineering to a new generation of potential drivers and engineers. The children we work with face multiple disadvantages in education, careers and life skills and are all too often excluded from STEM – we want to change that. Our Formula 1 Engineering Lab will show them (and the world) how the different ways they see and interact with their environment can be a superpower in F1 engineering. The F1 Engineering Lightyear Labs project has been generously funded by the Royal Academy of Engineering Ingenious Award .

Each lab is a series of four 1-hour sessions, delivered in person in special schools local to Oxfordshire by our Lightyear Lab Lead, supporting small groups of disabled children aged 11–16 to work scientifically in practical engineering, getting hands on with equipment and teaming up with real race car engineers. After designing their cars to factor in aerodynamics and testing them under pressure in a wind tunnel, the final session is race day – the moment of truth! Our engineers-in-training will experience the thrill of watching their cars powering down the racetrack at speeds of up to 75 kph!



**Royal Academy  
of Engineering**

**Ingenious**



## The role

Each lab will be supported by volunteer engineers who will be there to help our student engineers in the lab activities as well as answering questions and inspiring them to look at engineering. The Engineers will share photos and stories of their work, answer questions about engineering, talk about the professional opportunities in the sector and help with race car construction and use of equipment. Children will all have the opportunity to speak to an engineer one-to-one to find out more about their areas of interest and to help relationships between the children and engineers to grow throughout the lab.

## Who we're looking for

We're looking for engineers who are keen to share their experiences and inspire young people to explore engineering! We need volunteers who can travel to schools in Oxfordshire or the nearby areas (travel expenses will be reimbursed).

By donating your time, you will learn methods which work for inclusive science in Special Schools as well as:

- Develop skills in inclusive STEM delivery, communication skills and Makaton signing.
- Increased understanding of disabilities and how it impacts learning and public engagement.
- Develop skills to plan and deliver activities and resources for learners with SEND.
- Receive personal training and support throughout.
- Enjoy facilitating young people in discovering the joy of science!

We need you to:

- Attend all four lab sessions.
- Provide a short video introduction for our pre-session video.
- Attend an online, 2 hour, "Making Engineering Accessible" training session.
- Attend all four in-person lab sessions.
- Complete short surveys for Lightyear Foundation about your experience.
- Complete a short survey for the Royal Academy of Engineering.

DBS check: Possession of a satisfactory Disclosure and Barring Services (DBS) Check at Enhanced level is required. (If you do not already have a DBS check, Lightyear will arrange one.)

References: As part of the volunteering process we ask for you to provide contact details for someone we can contact for a reference.

Our Lab volunteers always leave the sessions smiling from ear to ear! The science experiments are exciting and engaging for the students, and as a volunteer, you get to enjoy seeing the participants' development in science and engineering.

## How to sign up

If you are interested in becoming a volunteer for our F1 Engineering Labs, you can contact Rosie ([rosie@lightyearfoundation.org](mailto:rosie@lightyearfoundation.org)) for more information, or [apply directly using this application form](#).