

Total number of pupils and teachers directly enrolled

680+

650+ Pupils

80+ Teachers



75,000+

learners supported through online videos



Shared Leadership & Accountability

8

Local Authority teachers and education leaders make up our Steering Group



17

Innovative Global Challenges designed - 9 launched so far



fida
so far

50+

Local Authority schools engaged



Workshops and Live Events



6 live workshops for 170 pupils from 15 different schools

Sustainable Fashion Week online panel discussion for 50+ participants



21 pupils studied SQA Higher Politics directly through FIDA – over 90% achieving A grade. Dozens more were supported online



Locations of participants

Our collaborators

Design for the Planet

Weekend workshop held on campus during COP-26, attended by 25 learners from 7 schools across central Scotland

Design For The Planet Workshop

25 pupils from seven schools across Stirling, Clackmannanshire, Fife, Glasgow and West Lothian came together during COP26 to create a powerful art installation. At its heart was Clarion, a 10-ft polar bear, created by artist Bamber Hawes.



Preview challenge 



**My Community,
My Food**

2 ZERO HUNGER 

Learn about the foods produced in your own area and create an original recipe from sustainable local ingredients.

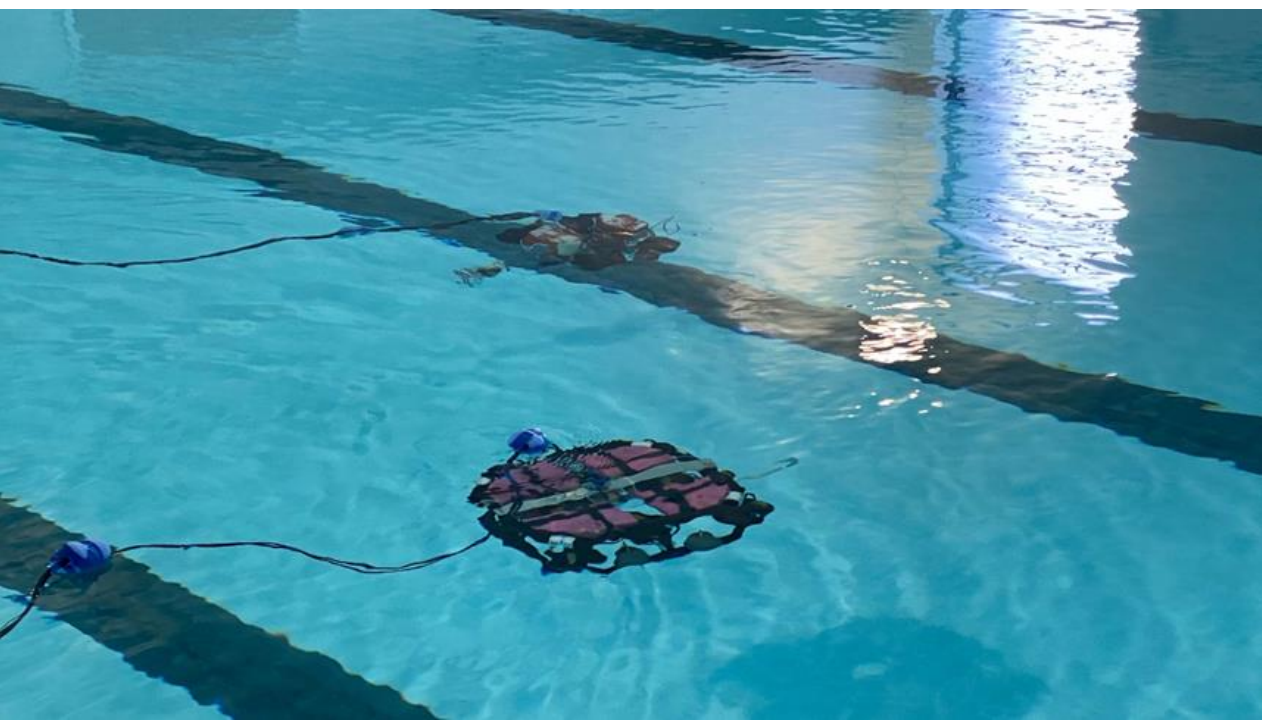
Open now



A course that matches the provision of the Foundation Apprenticeship, with a mix of classroom and work-based learning

Improving in-school attainment and employment outcomes





ROV/ Engineering Programme

- Design, manufacture & operate ROV submersible
- Project based , Interdisciplinary
- Industry mentor
- 'real life' application of engineering
- problem solving collaboration resilience etc

Level 6 SCQF





HEX ROBOTICS
 GROVE ACADEMY
 DUNDEE, SCOTLAND

Rosa Sweeney CEO
 Callum Bone Deputy CEO
 Eilidh Arnott Head of Design Team
 Matthew Main Head Electrical and Electronic Engineer
 Matthew Daly Production Specialist
 Yusuf Hussein Chief Financial Officer
 Joey Paterson Chief Safety Officer
 Jack Waghorn Mentor

HEX ROBOTICS

Design Rationale

The Comet was designed to meet the requirements of the global community. The ROV was equipped with tooling and cameras which were adapted to complete the missions which could help maintain the longevity of marine life. This ROV is adaptable and could be further developed to work on future tasks. The Comet is 600mm long, 406mm wide and 210mm high, and weighs 7.5kg.

Frame Design

The decision was made to use a hexagonal shaped based frame design as the hexagonal-type structure is one of the strongest shapes found in nature e.g. in water forming as ice where two water molecules combine to form a hexagon and in beehives where hexagonal packing minimises the perimeter for a given surface area. The hexagonal shape allowed us to attach the outside thrusters in four corner positions which permitted vector thrusting in pairs. Our designers wanted The Comet to be as compact as possible whilst still working as effectively as any other similar-sized ROV and this was a major design facet which helped significantly with this design.



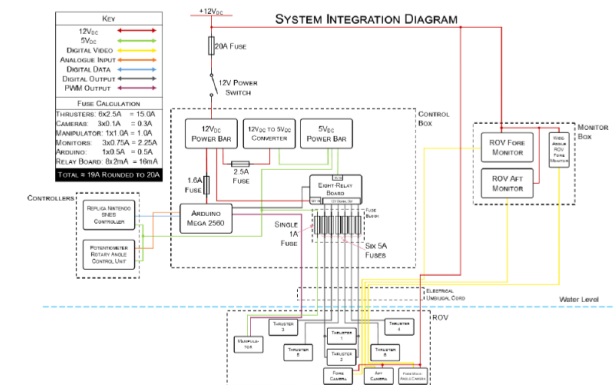
The Comet has two side walls each made from 5mm thick transparent acrylic comprising of two sections of length of 125mm linked with a 60 mm parallel face joining piece, this acrylic structure was formed, using a strip heater, at an angle 30° from this parallel. The acrylic was selected as it was easily customised and allowed us to create a hexagon shape.

The two acrylic side frames of The Comet were connected using four 6mm diameter aluminium threaded rods which

HEX ROBOTICS

Contents

Abstract	2
Project Management	4
Meetings	4
Team Members' Contributions	4
Design Rationale	7
Frame Design	7
Stress relief	9
Propulsion	10
Tooling	10
Hook	11
Net	11
Mini ROV	11
Manipulator	12
Electrical	13
Software	14
Cameras	15
Monitor Box	15
Buying, Building and Reusing	16
Safety Procedure	17
Critical Analysis	17
Testing and Prototyping	17
Challenges and lessons Learned	18



THE INTERNATIONAL SUSTAINABILITY DIPLOMA by FIDA

An innovative, one-year programme with a qualification worth 24 pts at SCQF Level 6

FOR STUDENTS

- Opportunities beyond traditional curriculum
- Evidence of attainment of key meta-skills
- Agency in tackling global problems

FOR SCHOOLS

- Wider curricular choice at Level 6
- Means to deliver 'Project Learning' (Hayward)
- Means to deliver on Learning for Sustainability



Prof Ken Muir

“FIDA’s bold approach to education places the student experience at the centre, providing critical opportunities to engage with industry and stakeholders beyond the classroom. This aligns closely with some of the recommendations I made in my report to the Scottish Government on a future vision for Scottish education and I am highly impressed with what the initiative aims to do.”



Cabinet Secretary Jenny Gilruth

“The Scottish Government is committed to developing a system of qualifications and assessment that ensures pupils are well-equipped to tackle future challenges as they progress through education. Young people are facing a range of global challenges, including the climate emergency, which is why we have supported Dollar Academy to gain accreditation of its sustainability diploma, as part of the implementation of our Learning for Sustainability Action Plan. I am pleased that vitally important education resources such as these can be accessed for free by pupils across the country.”

