

Design & Technology

6th Form A Level

DT GCSE 2022:

100% grades 7-9

68% grade 9

No. 1 school in country

using Edexcel DT! (out of 339)

Our Ethos:

Independent, creative problem solving with
a strong emphasis on technical solutions

Three possible A Level DT pathways:

Design Engineering

Product Design

Fashion & Textiles

Each of these can also be done as an AS Level (1 year)

A Level DT: Design Engineering:

Current projects include:

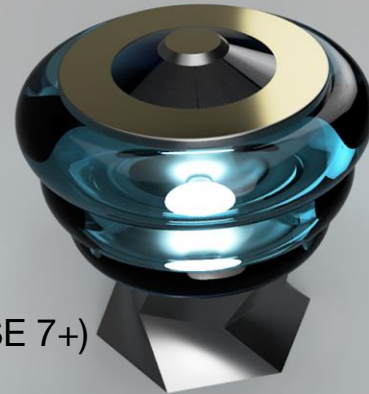
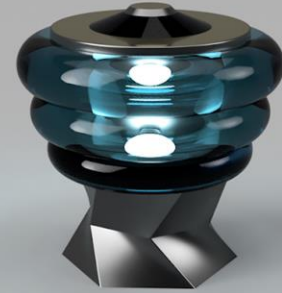
Electronics

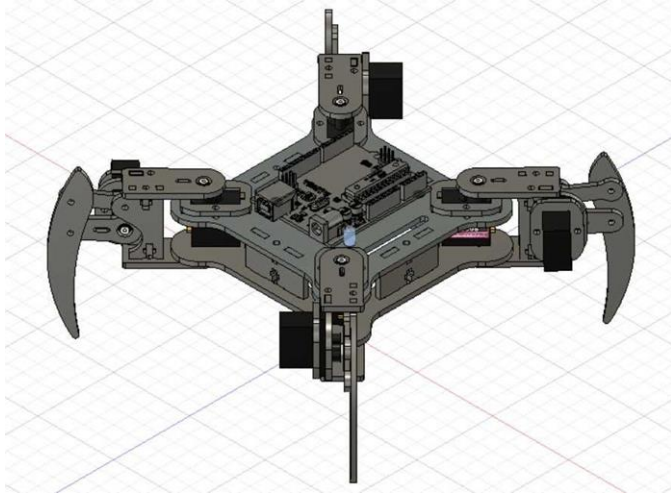
Mechanisms

Robotics

This pathway is ideal for students who:

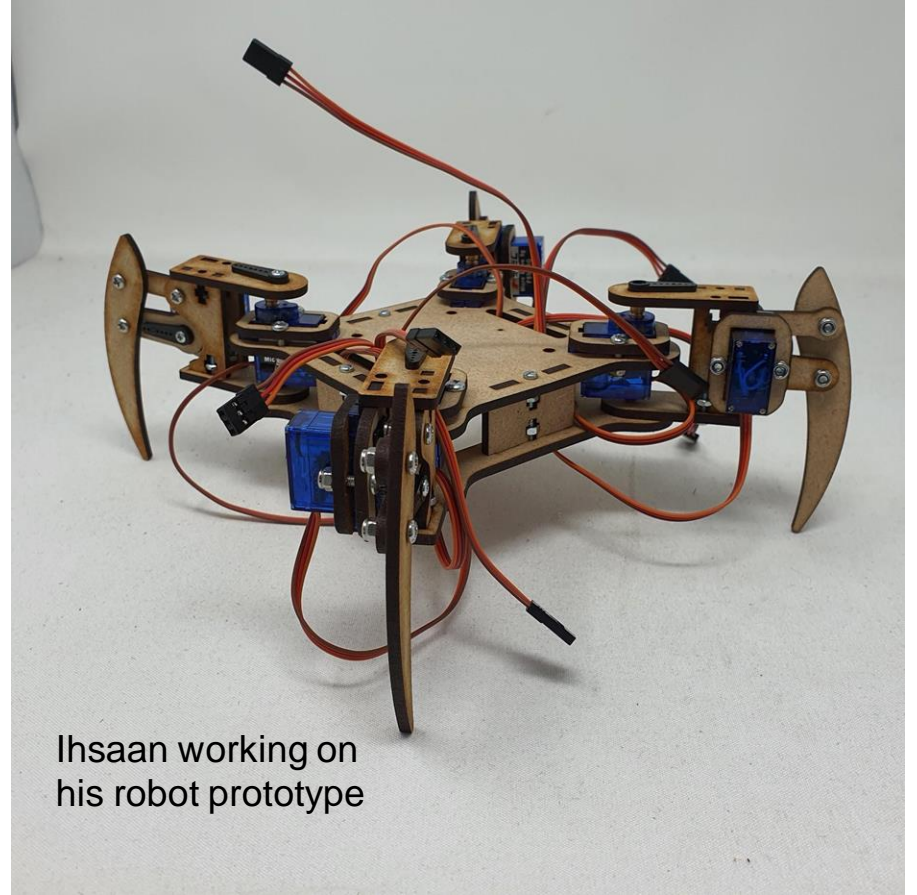
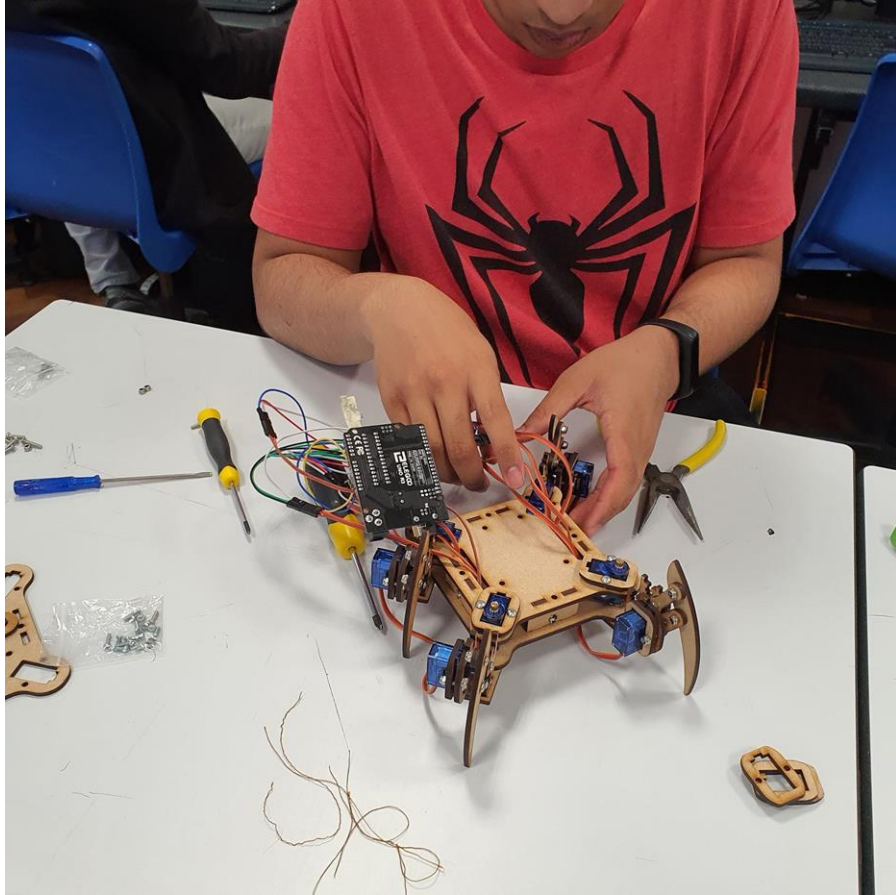
are keen on Maths and Physics,
have a strong academic track record in these subjects (GCSE 7+)
want to do Engineering as a degree



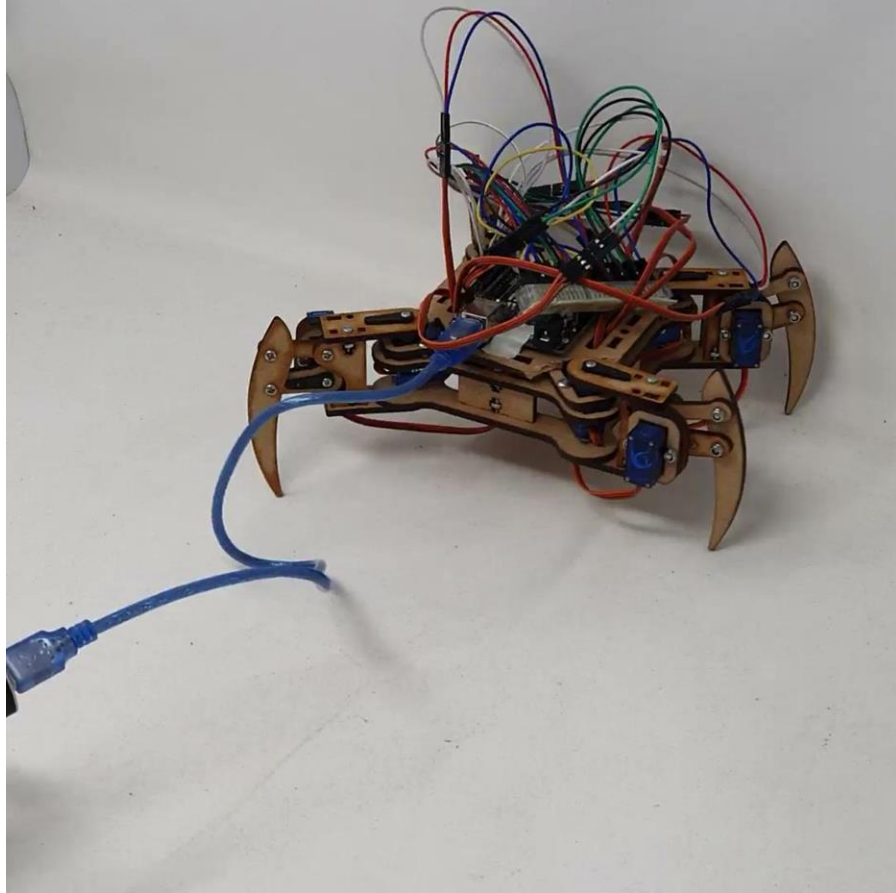


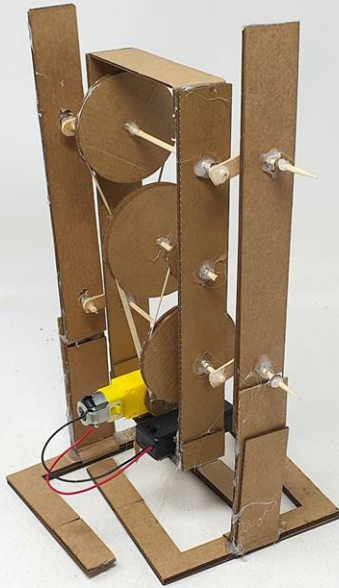
3D CAD model
(using Fusion 360)
by Ihsaan



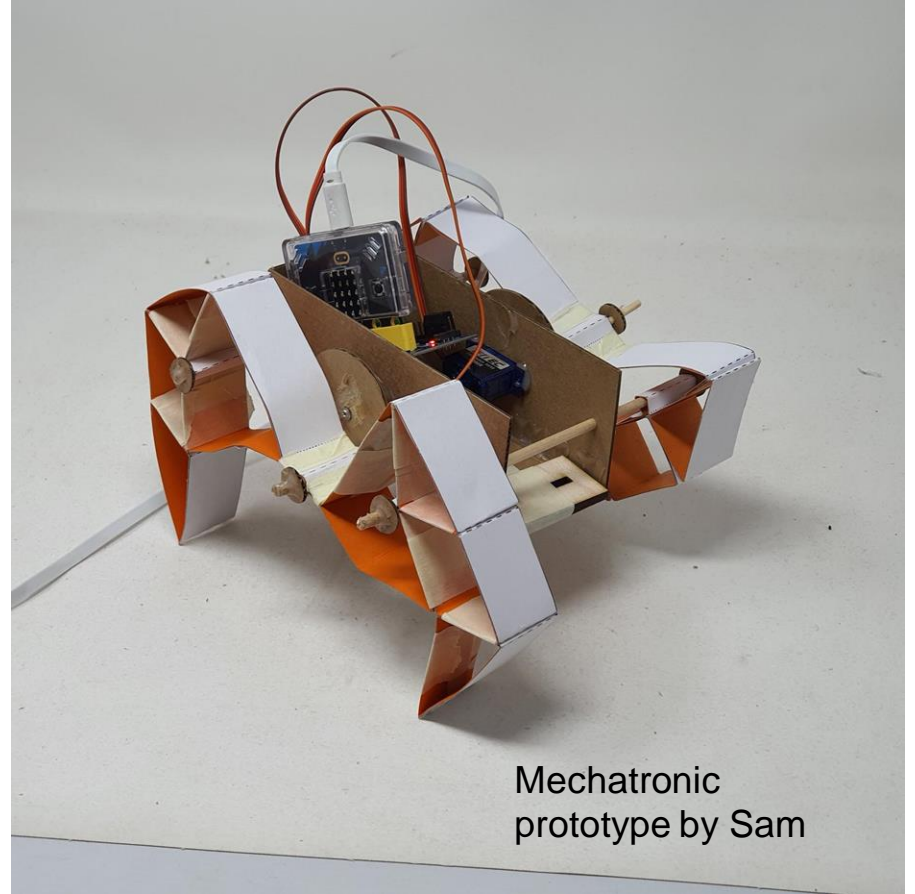


Ihsaan working on his robot prototype

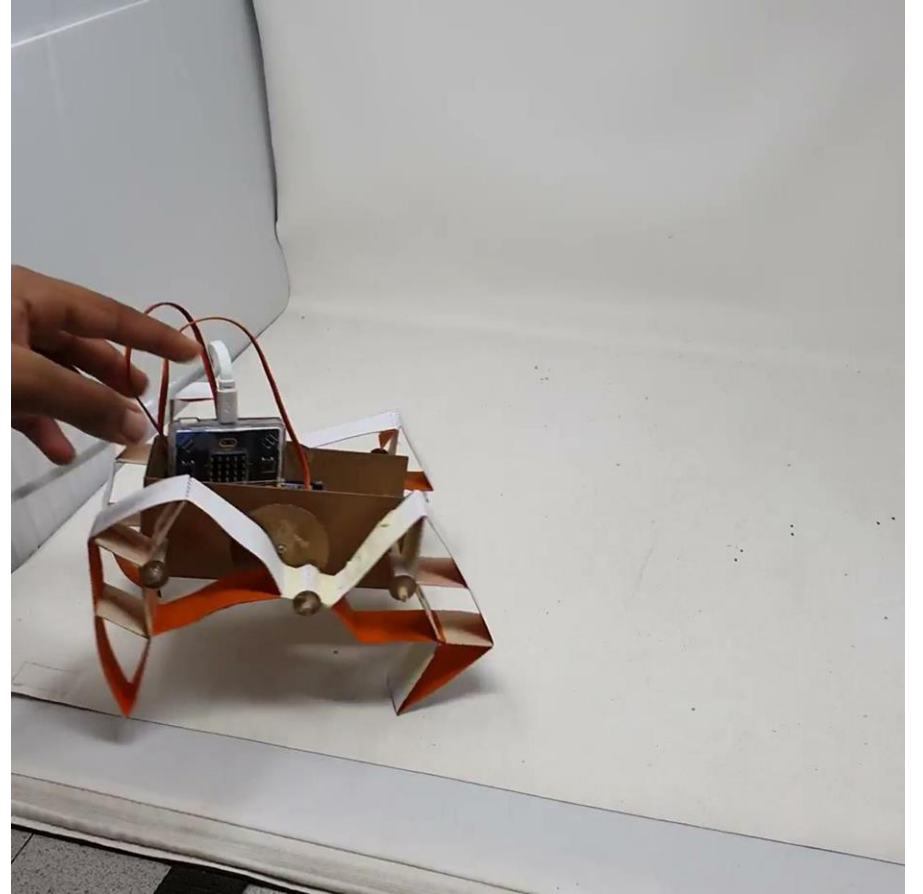




Belt driven walking robot by
Abhinav & Remy



Mechatronic
prototype by Sam



A Level DT: Product Design:

Current projects include:

Furniture

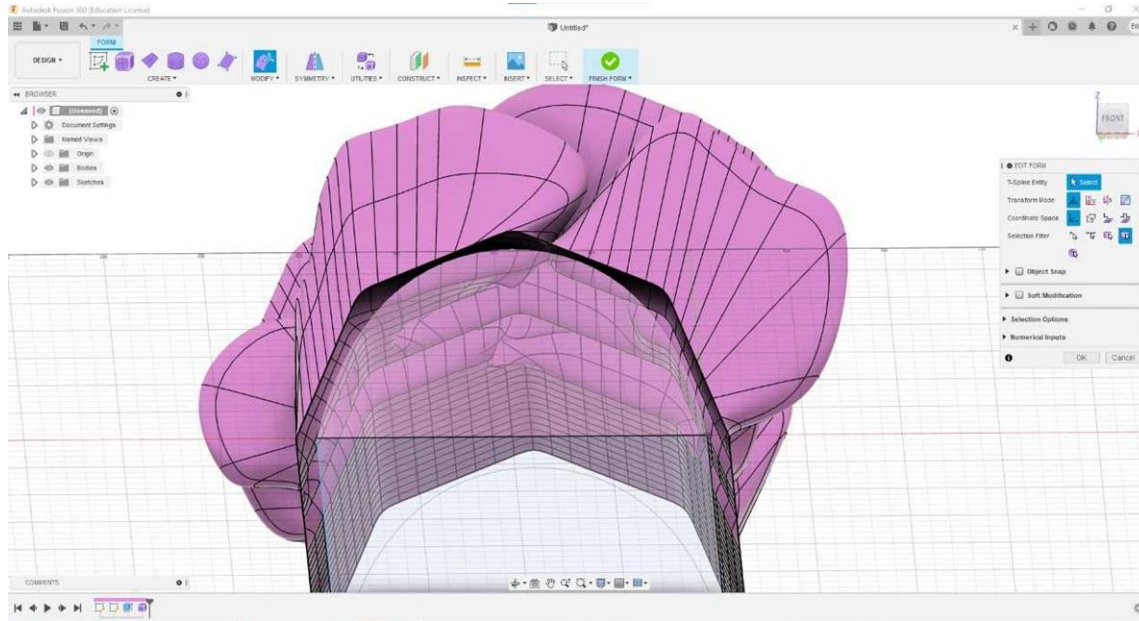
Vehicles (Personal Transport)

Mini-Architecture (Bird house)

This pathway is ideal for students who:

are interested in Ergonomics and Aesthetics
are interested in Architecture



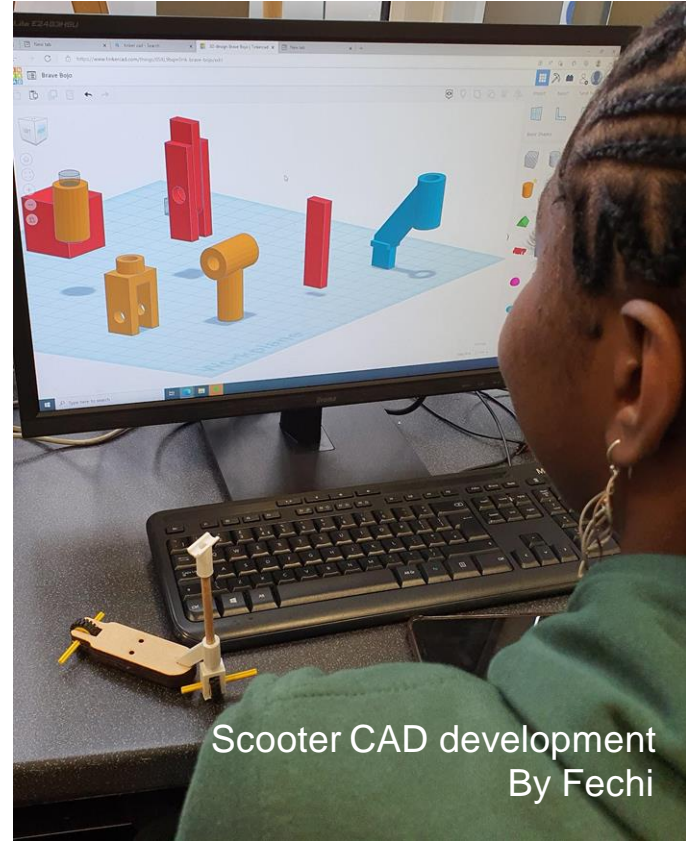


Birdhouse design CAD model by Eddie



Birdhouse roof tile test by Tara

Bird house development
By Martina



Scooter CAD development
By Fечи

A Level DT: Fashion & Textiles:

Current projects include:

Skirt

Garment reverse engineering

e-textiles

This pathway is ideal for students who:

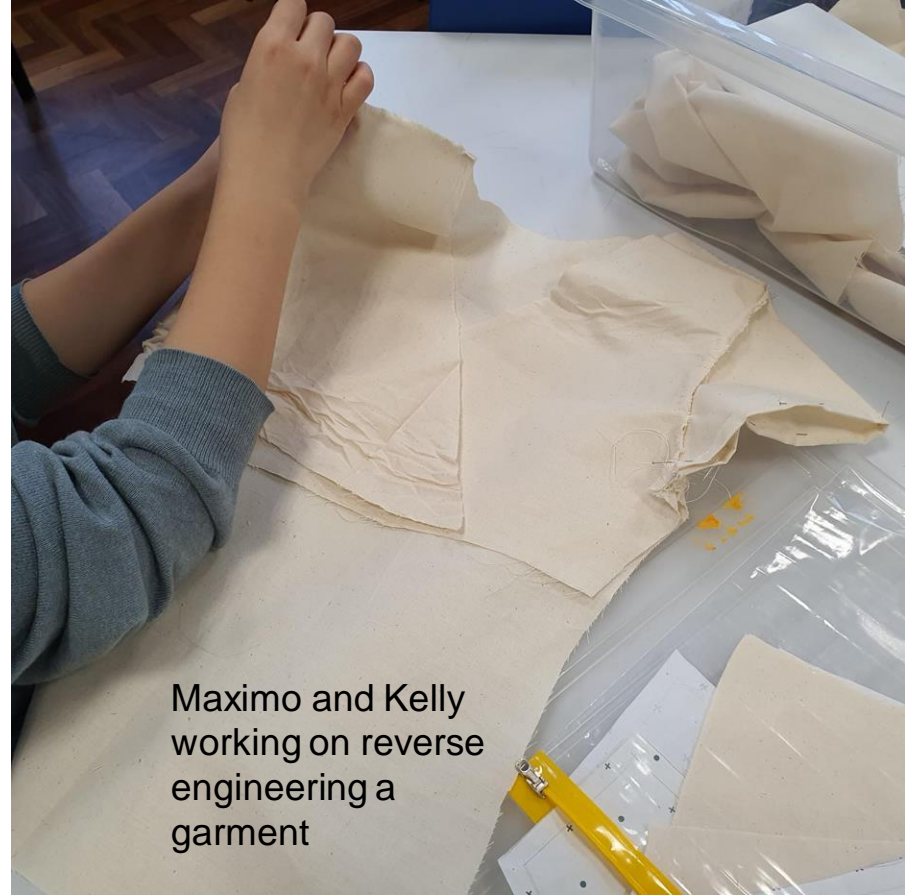
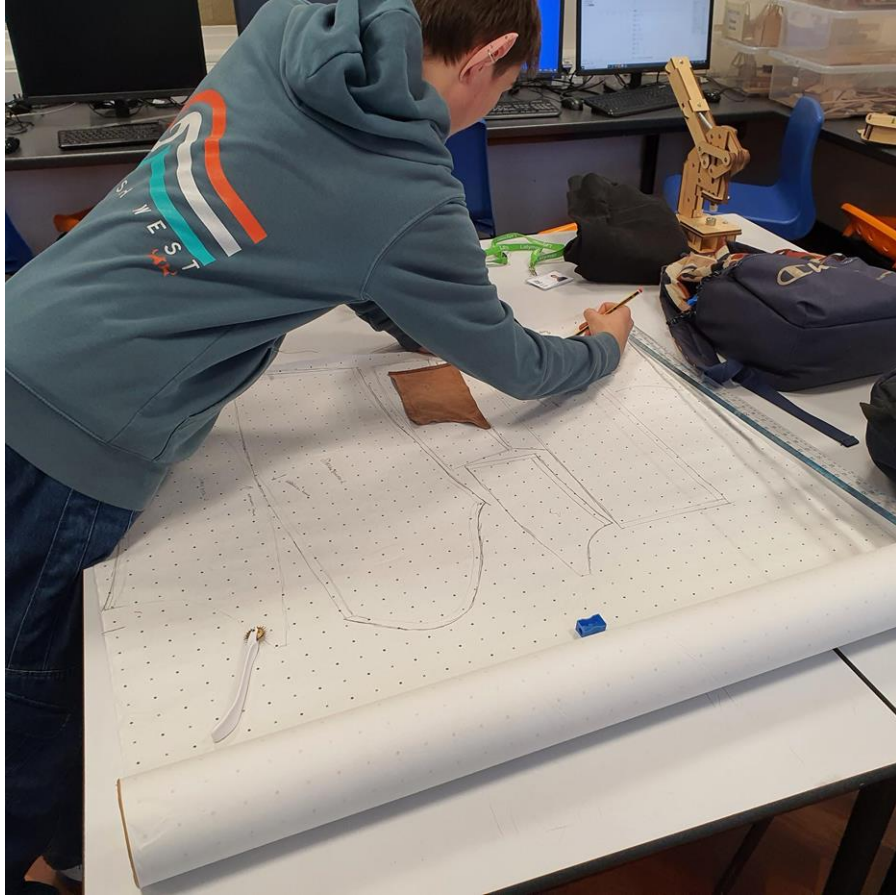
Have experience of designing and making using fabrics

Are interested in pursuing a Fashion/Textiles degree

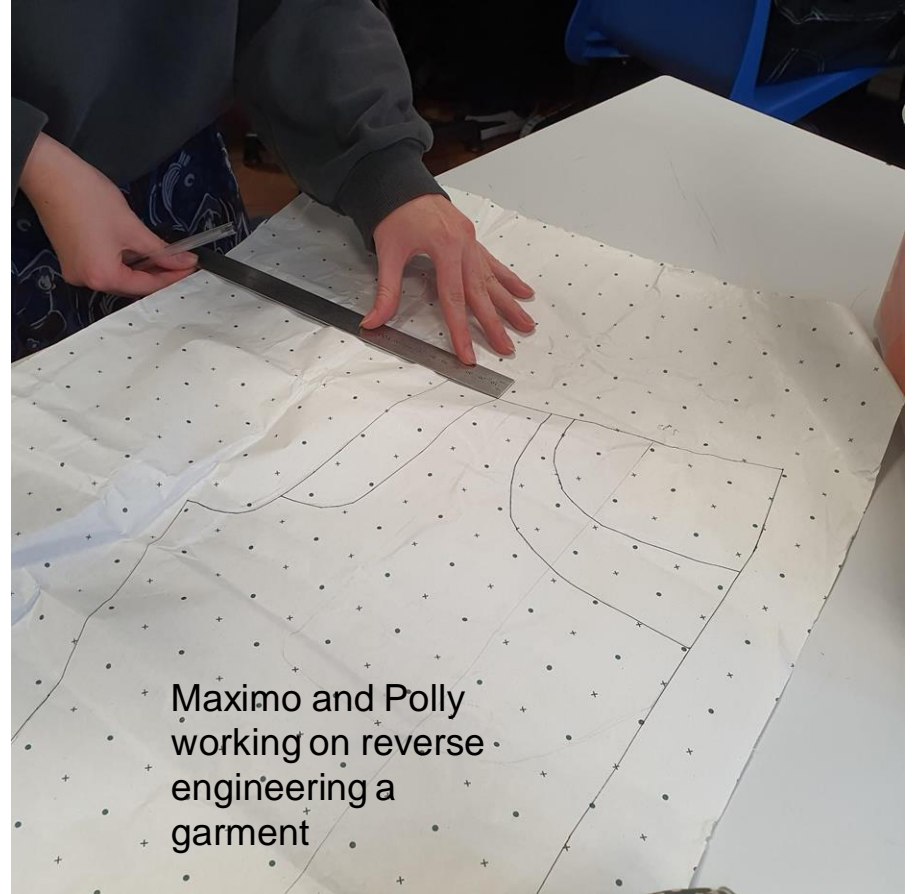




Multi-layer skirt
by Maximo



Maximo and Kelly
working on reverse
engineering a
garment



Maximo and Polly
working on reverse
engineering a
garment

A Level DT: Course Structure

	Term 1	Term 2	Term 3	Term 4	Term 5
Design Engineering	Intro to mechatronics	Advanced Mechatronics	Product Analysis leading to Iterative Design Project	NEA Development & Testing	Finalising NEA and exam preparation
Product Design	Workshop skills	User Focused Iterative Design	Personal Projects leading to NEA		
Fashion & Textiles	Skills Acquisition	Deconstructing garments	Personal Projects leading to NEA		

A Level DT: OCR Content & Assessment Structure

Content overview	Assessment overview	
<p>This paper is set out through four sets of questions that predominantly cover technical principles within each endorsed title.</p> <p>Learners will be required to:</p> <ul style="list-style-type: none"> • analyse existing products • demonstrate applied mathematical skills • demonstrate their technical knowledge of materials, product functionality, manufacturing processes and techniques • demonstrate their understanding of wider social, moral and environmental issues that impact on the design and manufacturing industries. 	<p>Principles of...</p> <p>80 marks</p> <p>1 hour 30 minutes</p> <p>Written paper</p>	<p>26.7% of total A Level</p>
<p>This component has a series of longer answer questions that require learners to demonstrate their problem solving and critical evaluation skills.</p> <p>Learners will be required to:</p> <ul style="list-style-type: none"> • apply their knowledge, understanding and skills of designing and manufacturing prototypes and products • demonstrate their higher thinking skills to solve problems and evaluate situations and suitability of design solutions. 	<p>Problem Solving in...</p> <p>70 marks</p> <p>1 hour 45 minutes</p> <p>Written paper</p>	<p>23.3% of total A Level</p>
<p>The 'Iterative Design Project' requires learners to undertake a substantial design, make and evaluate project centred on the iterative processes of explore, create and evaluate.</p> <p>Learners identify a design opportunity or problem from a context of their own choice, and create a portfolio of evidence in real time through the project to demonstrate their competence.</p>	<p>Iterative Design Project</p> <p>100 marks</p> <p>Approx. 65 hours</p> <p>Non-exam assessment</p>	<p>50% of total A Level</p>

A Level DT: Course Prerequisites

Enthusiasm for making

Enjoy hands-on workshop practice

Does not require lots of instruction

Able to work independently

For Fashion Textiles:

Must have some experience of working with
textiles

A Level DT: Pathways

Engineering degree

Product design degree

Fashion design degree

Architecture