



Wedi ei ariannu gan  
Llywodraeth y DU

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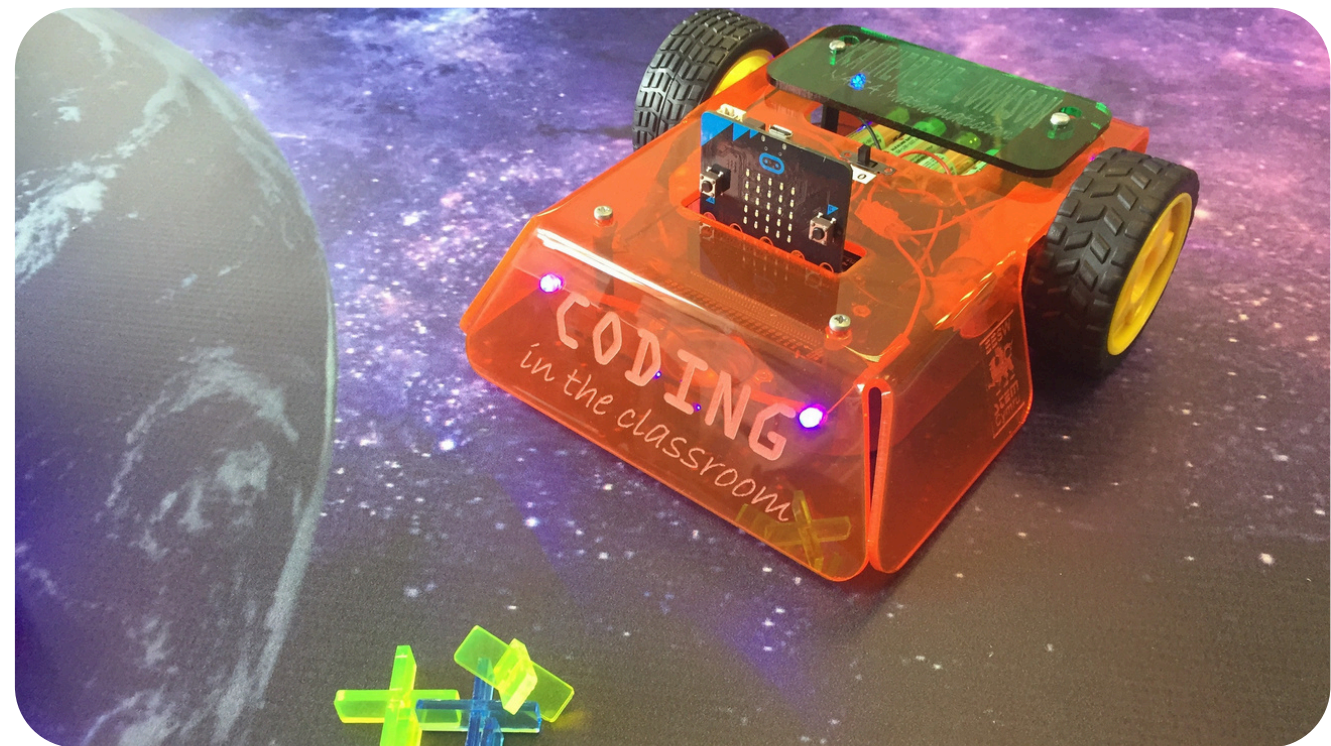


## Introduction 2 Engineering & Manufacturing Workshops for Secondary Schools in Bridgend



### Speed Challenge

EESW Speed Challenge is a fantastic two-hour activity where pupils get to experience the exciting world of CO2 powered model racing cars. Pupils work in teams to build and race their cars on our purpose-built floor track to see which team has produced the fastest CO2 powered car.



### BBC micro:bit Workshop

In this BBC micro:bit workshop, pupils are guided through a series of challenges where they will create code to move a microbit robot through a series of tasks. Pupils program a transmitter and receiver to introduce remote control, adjusting their code throughout to improve their robot's performance.

### Wind Turbine Workshop

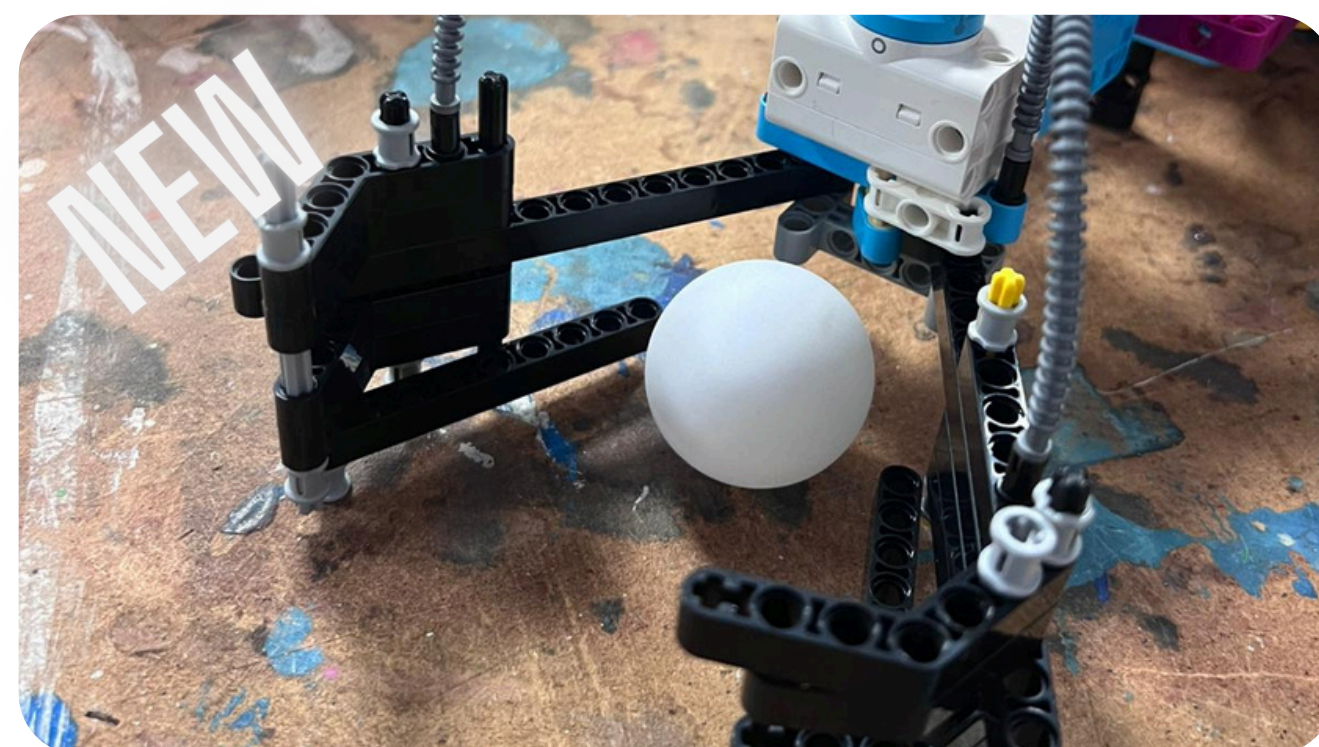
Working in small teams, pupils use our redesigned kits to build their own wind turbine and measure the energy generated. Pupils learn how they work, how they are engineered and constructed, and are tasked to create and record the most efficient wind turbine.



### Prosthetics Workshop

Pupils are encouraged to look at the history of prosthetics to discover how their use has developed over time and now work seamlessly in the modern world.

In teams, pupils will build their own prosthetic arm using Lego Spike kits and will use code to be able to follow simple instructions.



Website:

[STEMCymru.org.uk](http://STEMCymru.org.uk)

Contact:

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Follow us on our socials

@EESWSTEMCymru

Fully funded workshops for secondary  
schools in Bridgend



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THROUGH THE  
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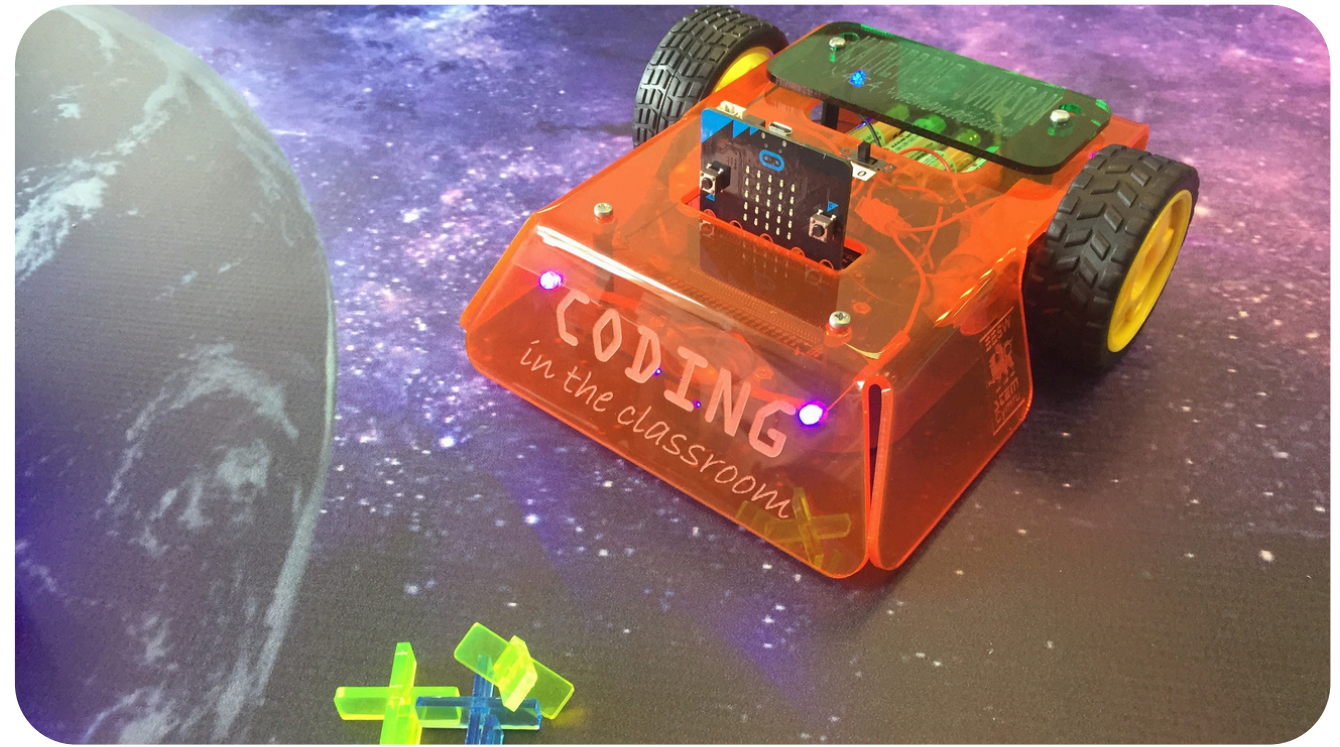


## Cyflwyniad i Beirianeg a Gweithgynhyrchu Gweithdai ar gyfer Ysgolion Uwchradd ym Mhen-Y-Bont ar Ogwr



### Sialens Cyflymder

Mae Sialens Cyflymder EESW yn weithgaredd dwy awr wych lle mae disgyblion yn cael profi byd cyffrous ceir rasio model wedi'u pweru gan CO2. Mae disgyblion yn gweithio mewn timau i adeiladu a rasio eu ceir ar ein trac llawr pwrpasol i weld pa dîm sydd wedi cynhyrchu'r car sy'n cael ei bweru gan CO2 cyflymaf.



### Gweithdy BBC micro:bit

Yn y gweithdy micro:bit BBC, caiff disgyblion eu harwain trwy gyfres o heriau lle byddant yn creu cod i symud robot Microbit trwy gyfres o dasgau. Mae disgyblion yn rhaglennu trosglwyddydd a derbynnydd i gyflwyno teclyn rheoli o bell, gan addasu eu cod drwyddo draw i wella perfformiad eu robot.

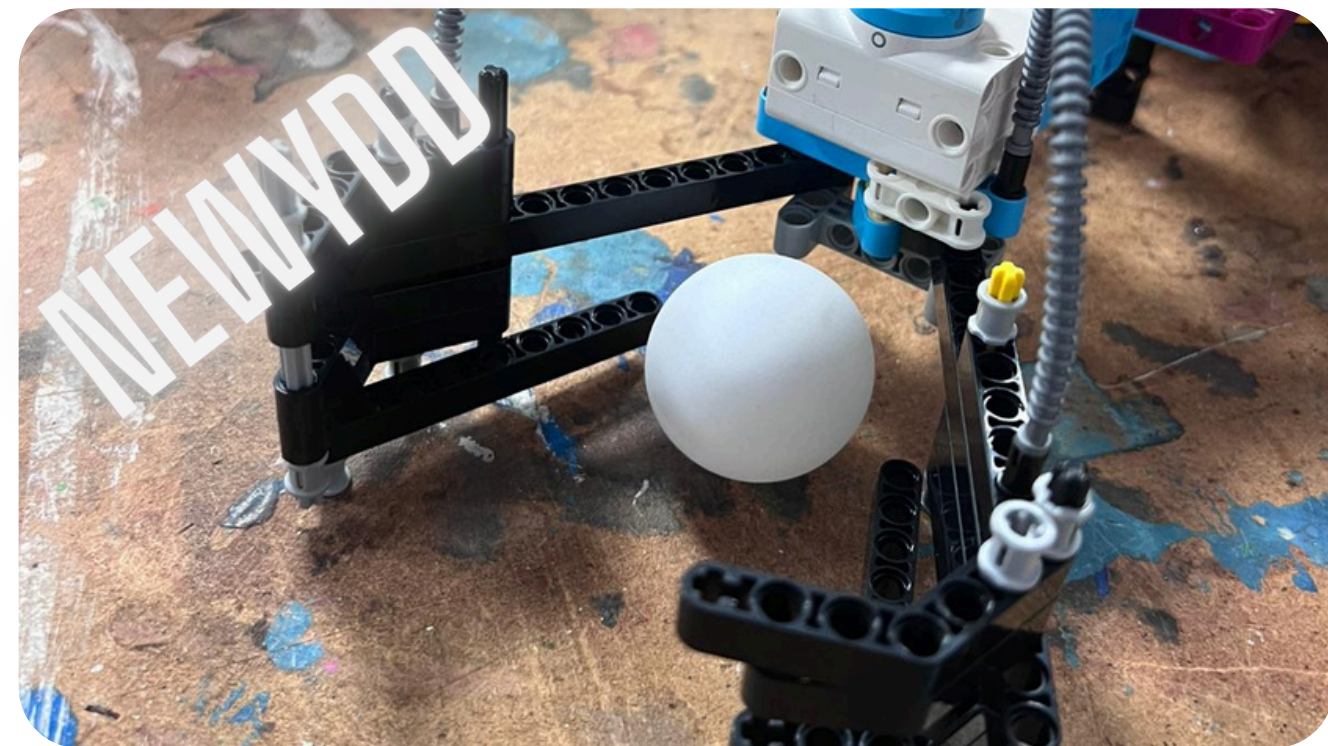
### Gweithdy Tyrbinau Gwynt

Gan weithio mewn timau bach, mae disgyblion yn defnyddio ein citiau wedi'u hailgynllunio i adeiladu eu tyrbin gwynt eu hunain a mesur yr ynni a gynhyrchir. Mae disgyblion yn dysgu sut maen nhw'n gweithio, sut maen nhw'n cael eu peiriannu a'u hadeiladu, ac maen nhw'n cael y dasg o greu a chofnodi'r tyrbin gwynt mwyaf effeithlon.



### Gweithdy Prostheteig

Anogir disgyblion i edrych ar hanes prostheteig i ddarganfod sut mae eu defnydd wedi datblygu dros amser a nawr yn gweithio'n ddi-dor yn y byd modern. Mewn timau, bydd disgyblion yn adeiladu eu braich brosthetig eu hunain gan ddefnyddio citiau Lego Spike a byddant yn defnyddio cod i allu dilyn cyfarwyddiadau syml.



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**Dilynwch ni ar gyfryngau**  
**cymdeithasol**  
**@EESWSTEMCymru**

Gweithdai wedi'u hariannu'n llawn ar gyfer  
ysgolion uwchradd ym Mhen-Y-Bont ar Ogwr



**MAE'R PROSIECT HWN WEDI EI**  
**ARIANNU GAN LLYWODRAETH Y DU**  
**DRWY GRONFA FFYNIANT**  
**GYFFREDIN Y DU**