



HEDDLU
GOGLEDD CYMRU
NORTH WALES
POLICE

NORTH WALES POLICE CYBERCRIME TEAM PRESENTS

CODESECURE

THE UK's FIRST CYBER PREVENT & PROTECT HACKATHON

USER GUIDE

Welcome to CODESECURE

The UK's *first*
Cybercrime team
led Prevent &
Protect hackathon.

We are here to bring together the very best **coding maestros**, **communicators**, **cybersecurity enthusiasts**, **graphics creators**, and **passionate individuals**, to collaborate on fun and engaging approaches to using our new equipment to help inform members of the public and businesses about online dangers and how to stay safe online.

Are you READY?

The day is dedicated to **innovation!** It's you and your teams' mission to come up with ideas on how to **engage** and **inform..**

You have a selection of equipment to use at your disposal – whether you want to develop an app, game, new piece of coding, there is no set approach to the challenge! Have fun, experiment with your techniques and engage with teammates to see what you can come up with.

In this user guide you'll find quick start information on the technology available for you to use, as well as easy links to manufacturer troubleshooting and developer pages.

DON'T FORGET
you have plenty of people in the room on hand through the day to help with anything you need to continue the challenge. So don't be afraid to ask for an assist!

10:00 – 10:15
Arrival & Coffee
10:15 - 11:00
Welcome & Challenge Overview Presented by North Wales Police.
11:00 - 13:00
The Hack Begins Teams/individuals work to design and develop their solutions.
13:00 - 14:00
Networking Lunch Connect over lunch with like-minded individuals, cybersecurity professionals, and potential collaborators.
14:00 - 16:00
Return of the Hack Teams/individuals work to design and develop their solutions.
16:00 - 16:15
Afternoon Break A quick refuel before the final leg.
16:15 - 18:00
Back 2 Hack Teams/individuals work to design and develop their solutions.
18:00 - 19:00
Showcase & Presentations Teams/individuals present their solutions to the judging panel.

META QUEST 3

VR Gaming Headset



Meta Quest 3 is a virtual reality (VR) headset developed by Reality Labs, a division of Meta Platforms. It was unveiled on June 1, 2023, and released on October 10 as a successor to the Quest 2.

The headset features updated hardware with elements of the Quest Pro, including a thinner form factor and lenses, and additional sensors and colour passthrough cameras intended for mixed reality software.

Get Started

Some background programmer knowledge is advantageous, however there are game development engines including **Unity** and **Unreal Engine** with visual scripting systems that will allow you to create your VR simulation without extensive coding knowledge.

The easiest way to get started in creating a VR solution is to check out Meta's Developer Resources page here - <https://developer.oculus.com/quest/>

Want to know more?

A great resource for quick tutorials is YouTube. Check out the link below to a video on the "Meta Developers" account where you'll find a walkthrough of the developer hub, quick guide to recording and casting and other useful profile tools:

<https://www.youtube.com/watch?v=70iGlz6DsIA>



ELECROW

CrowPi

All-in-one Kit



The Elecrow CrowPi is an innovative and versatile “all-in-one” educational tool designed to enhance hands-on learning in the fields of electronics, programming, and robotics. Created by Elecrow, a company specializing in STEM (Science, Technology, Engineering, and Mathematics) education products, the CrowPi combines a variety of components, such as a Raspberry Pi, sensors, buttons, and a display, into a single unit.

Ideal for both beginners and advanced learners, the modular design allows users to build and customize their projects through coding, electronics, or robotics concepts.

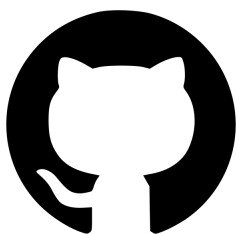
Get Started

To help you get to know a bit more about the equipment check out Elecrow’s quick start guide here: <https://www.elecrow.com/download/CrowPi-lessons.pdf> where you’ll find a list of lessons and tutorials to experiment with.

Want to know more?

Check out the Official Elecrow repository on GitHub for open source projects, explainers and inspiration to get you started:

<https://github.com/Elecrow-RD/CrowPi>



TAG & BRAG

Posting on Social Media?

Use our hashtag

#CODESECURE24

to post about your progress
through the day!

HAK5 WiFi Pineapple

Mark VII



The WiFi Pineapple is a wireless auditing platform created by Hak5 that allows network security administrators to conduct penetration tests and seek out security vulnerabilities to exploit in the company's system, network or infrastructure.

It can also be used as a rogue access point (AP) to conduct man in the middle (MitM) attacks – where messages between two parties are secretly intercepted and relayed to collect sensitive personal information, including passwords.

Get Started

The WiFi Pineapple web interface has a quick start user guide to help you get set up:

<https://wiki.wifipineapple.com/#!management.md>

There are also plenty of public repositories and cheat sheets to make use of on GitHub -

<https://github.com/topics/wifi-pineapple>

Check out the HAK5 YouTube channel for a full playlist on the WiFi Pineapple:

<https://www.youtube.com/@hak5/playlists>



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CGI



LENOVO TABLET M10 series



The Lenovo M10 10.1” android tablet with Octa-core processing and up to a 2.3GHz main frequency is a great piece of development kit.

Whether you’re looking to build an app, an informative web page, or codebreaking challenge, an android tablet is a good match for a developer project.

Get Started

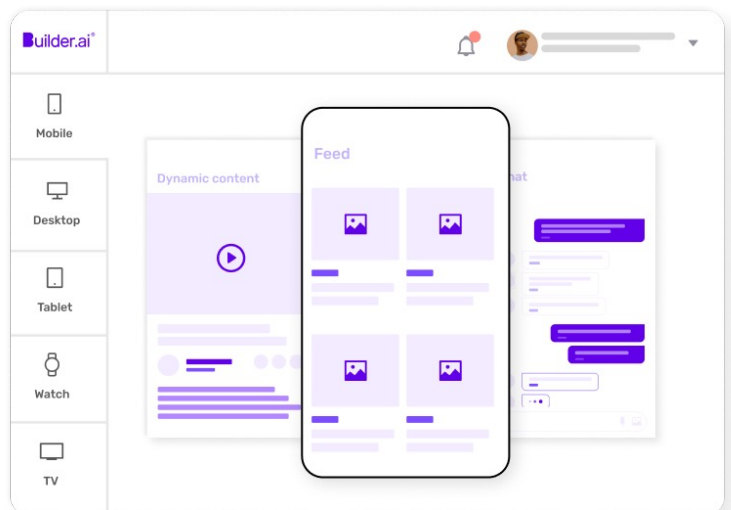
The Android Studio is a continuous source of help and advice for developers – there are numerous samples, guides and tutorials to help you get started, as well as a comprehensive game development center and community resources page

Explore the Android Studio here - <https://developer.android.com/>

Not a Developer?

There is a selection of programmes available to use that doesn’t require any coding knowledge or ability. They offer “drag and drop” interfaces that are perfect For putting mini games and simple apps Together within a short timeframe.

**Search: “No Code Development”
to find out more**



FLIPPER ZERO

Multi-tool Device



Flipper Zero is a portable multi-tool for pen testers and geeks in a toy-like body. It loves hacking digital stuff, such as radio protocols, access control systems, hardware, and more. It's fully open-source and customizable, so you can extend it in whatever way you like.

Explore any kind of access control system, RFID, radio protocols, and debug hardware using GPIO pins.

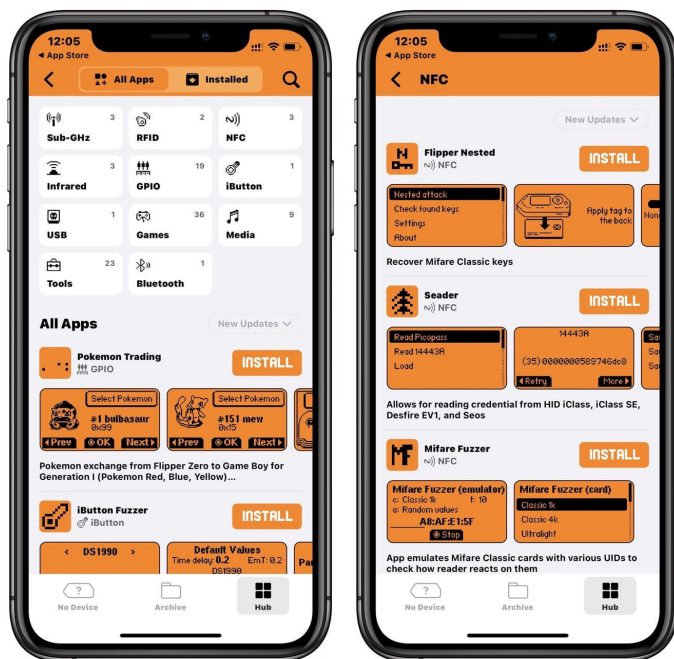
Get Started

Flipper Zero is completely autonomous and can be controlled with a 5-button directional pad without additional devices, such as computers or smartphones. Main features are available from the Main Menu.

For more control, you can connect to Flipper Zero via USB and Bluetooth. Instead of a TFT, IPS or OLED, they decided to build in a cool old-school LCD.

There are plenty of online resources, downloads and developer tools available to use on the Flipper Zero site -

<https://flipperzero.one/downloads>



Collaboration is KEY



We encourage you to reach out to others during the day and take advantage of all the different skill sets within the room. If you have an idea but are not sure how to bring it to life, we suggest pairing up with someone(s) who can complement your skills and work as a team. If you need help finding members for your dream team at the event, reach out to a member of the team! We'll help find you a match to help.

Need some inspiration?

You are free to create whatever you want on the day, however if you need some inspiration to get the creativity flowing then check out the below list of ideas from our teams:

- VR game to identify cyber risks in a room (Meta Quest 3)
- Door Access Card Copying Demo (CrowPi & Flipper Zero)
- Public WiFi Warning Trap (Pineapple)
- Cyber Quiz (Tablets or CrowPi)
- Interactive scenarios such as QR code triggers (Mixed)

You don't even have to use the equipment on hand! Why not try making an interactive game or a presentation to use on cyber-crime?

- Card Game
- Board Game
- Escape Room Style Challenges (Mixed)
- Presentation of risks to SMEs (Laptops or Tablets)

A bit about our SUPPORTERS



A networking group of over 3,000 cyber security professionals and enthusiasts. Facilitating knowledge sharing, opportunities and international trade avenues for Welsh enterprise. cyberwales.net



CGI is among the largest IT and business consulting services firms in the world. With teams in Bridgend and St. Asaph, CGI deliver world class IT solutions to some of the largest public and private sector organisations. cgi.com



North Wales Police and Community Trust (PACT) supports projects by community and voluntary groups, in partnership with their Neighbourhood Policing Teams that will have a positive impact in local communities and encourage a safer environment and increased quality of life. pactnorthwales.co.uk



SudoCyber are on a mission to make learning fun, engaging & accessible. They do this by allowing users to safely learn, practice and compete through gamified challenges to develop real-world skills through our fully secure SudoRange platform. sudocyber.net



A University in the north-east of Wales, with campuses in Wrexham, Northop and St Asaph. Wrexham University are developing their [Cyber Innovation Academy \(CIA\)](https://wrexham.ac.uk) which aims to transform cyber security research and address the growing skills gap in the cyber security field in North Wales wrexham.ac.uk



Drayk are a Wrexham based digital agency that specialise in secure website, mobile application and software development. With a team of creative and skilled professionals who have a talent for crafting tailored solutions to help businesses achieve their goals online. drayk.studio



ERYRI LABS

At the forefront of innovation in generative artificial intelligence, EryriLabs are a team of AI enthusiasts who specialise in creating tailor-made GPT models that cater to the unique requirements of their clients. www.eryrilabs.co.uk



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