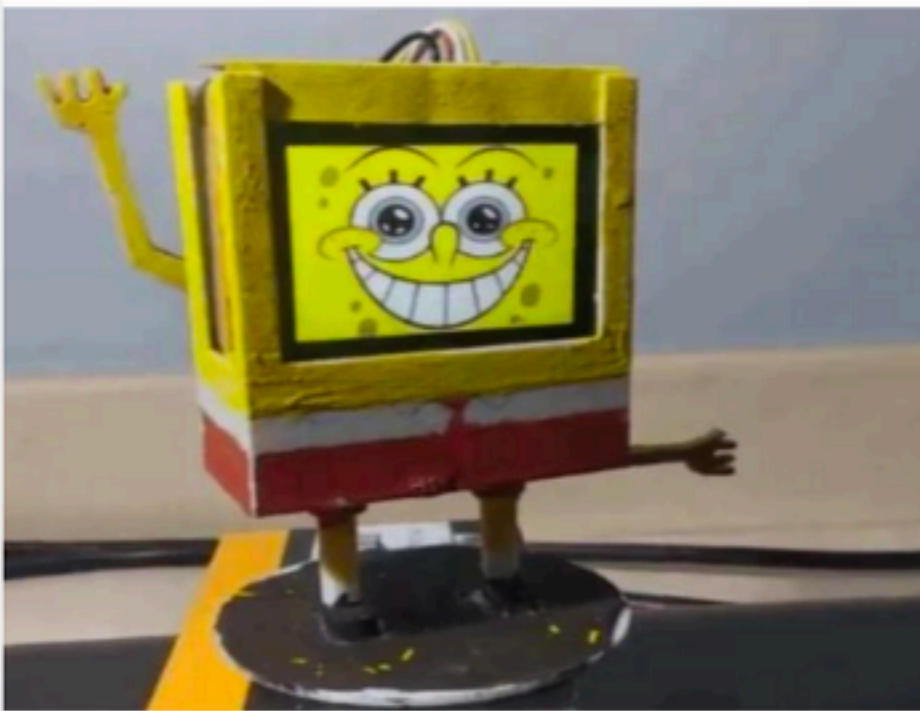


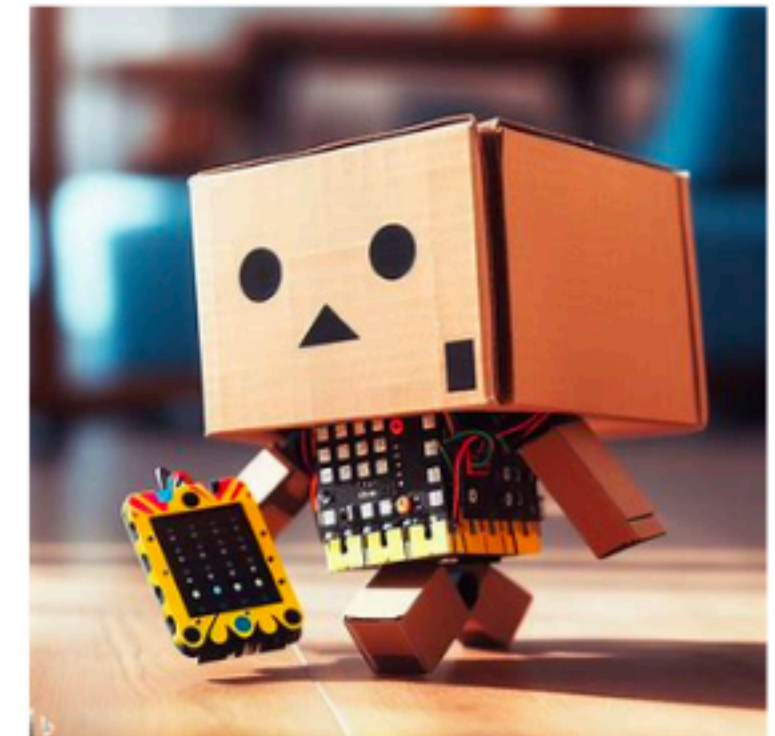
CFF PROGRAMME FREE 10 HRS WORKSHOP & KITS

LEARN COMPUTATIONAL &
DESIGN THINKING

•
APPLY TECHNOLOGY AND
STEM TO SOLVE REAL WORLD
PROBLEMS



Smart Personal Digital Assistant



Choose either Vendor-Led or School-Run Programme

- CODE: Zen 1 Micro:bit IoT Maker Kit
Zen 2 - Micro:bit IoT Robo-Maker Kit
Zen 3 - M5Go V2.6 Prototyping Kit
Zen 4 - M5StickC Plus IoT Robo-Maker Kit

In the 2024 CFF Enrichment Programme, schools can choose to tap on the CFF to provide fully subsidised training support to run the 10 hours CFF for up to 2 cohorts! For schools who have yet to sign up for the CFF in 2023, you can take advantage of both hardware (choose any kit from our 4 available kit packages) and training support for up to 2 cohorts in 2024!

For our CFF level 1 workshop, students will learn how to code and use different sensors and actuators to create useful prototypes to solve real world problems aligned with various ALP themes.

For our CFF level 2 workshop, students will learn more about Artificial Intelligence, Machine Learning and Generative AI. Students will be coached on how to use AI Camera as well as Generative AI, together with basic sensors and actuators to create more complex prototypes which can solve real world problems more effectively.

With more than 4 hours of project time allocated out of the total 10 hours workshop for both level 1 and level 2 workshops, the CFF can now better support your school's existing programmes such as STEM ALP or Math/ Science/ICT Project Work. Schools will also have more flexibility to customize the CFF to align with learning objectives they want to achieve, whilst providing their students with an opportunity to develop key computational and design thinking skills.

Sign-up now for our CFF using either of the above programme codes at this link: <https://go.gov.sg/cffsec2024>

Learn more about Artificial Intelligence and Internet Of Things to create AIoT prototypes!

Compatible with all Windows, Chrome or Apple PLD devices!

Learn to create with either Block or Python Programming with web based Uiflow or Makecode!

All hardware and training fully sponsored. No ITQ required. Just fill up a simple form to apply!

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Please reach out and contact us if you have any questions:

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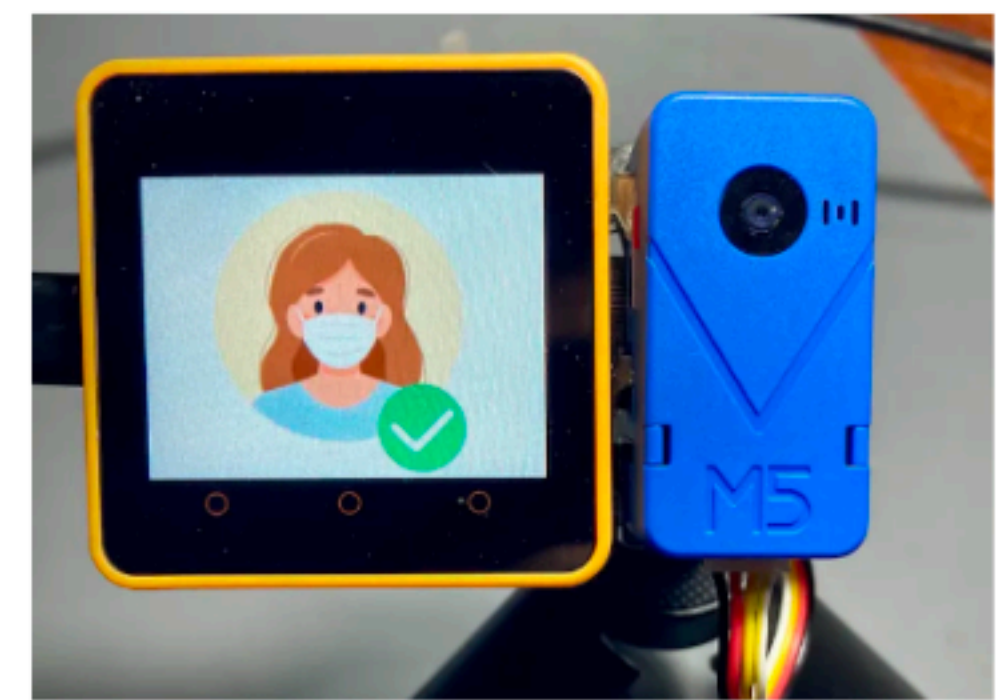
Code For Fun Level 1 Overview

Hours	Lesson Objective
1	Computational thinking and introduction to microcontroller and programming platform.
2	Learning and controlling outputs (LEDs and Buzzers) with Buttons
3	Using and Coding Inputs/Sensors (PIR and Light Sensors)
4	Using sensors (ultrasonic sensor) to control actuators (servo motor)
5	Collection of data, data analysis using environment sensor and to control an output (ie. LED, Buzzer or Servo)
6	Using IoT and sensors to collect, post and analyse data on the cloud
7	Learn what is design thinking, how to empathise, define problem statement before ideating on solution, prototyping and reiteration using sensors/actuators
8 - 10	Capstone Project – Students will work in groups to create a prototype, using what they have learnt, to solve problem statement posed

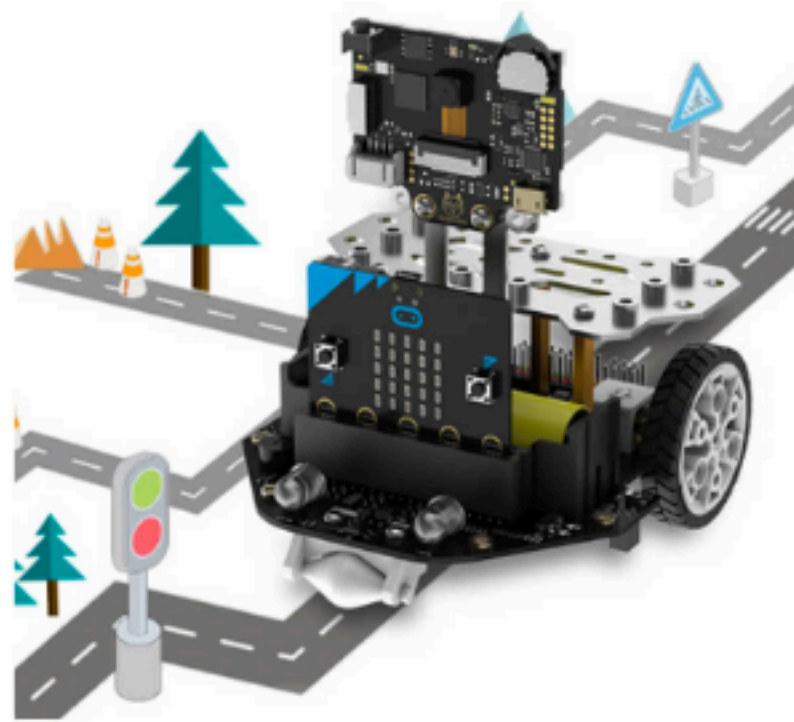
Zen 1
- Micro:bit IoT
Maker Kit



Zen 3
- M5Go V2.6
Prototyping Kit



Zen 2
- Micro:bit IoT
Robo-Maker Kit



Zen 4
- M5StickCPlus IoT
Robo-Maker Kit



Code For Fun Level 2 Overview

Hours	Lesson Objective
1	Recap on micro-controllers, basic sensors, actuators and programming platform
2-3	Learning Data Analytics with AI. Students will be interacting with Generative AI platforms and learn to do basic prompt engineering to receive accurate text and visual outputs. They will Input data into ChatGPT to aid data analysis
4-5	Introduction to AI Vision and hardware. Use AI vision for Machine Learning – Object recognition, facial recognition and QR recognition
6	Integration of AI vision into a microcontroller using micro-python
7-10	Capstone Project – Students will work in groups to create a prototype, using what they have learnt, to solve problem statement posed. Students will be presenting and sharing their prototype with the class.