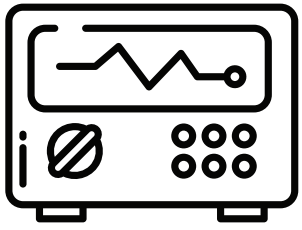# DEV BOARDS
ARDUINO, RASPBERRY PI, ESP & MORE

Skill Tree: Color in the boxes and level up your skills

Use for individuals or as a group by picking a colour each and coloring in a part of the box. Everyone's journey is different and you can interpret the goals flexibly. The aim is to inspire you to learn and try new things. Not everything needs to be completed.

ADVANCED

BASICS

(set your own goal)

(set your own goal)

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(set your own goal)

Enter a Hackathon, Robotics competition or CTF activity

Design your own Arduino hat / Raspi Shield / Dev board

Do an autonomous robotics project

Teach a class on a dev board

Use TinyML in a project (eg. Object Detection)

Send data with LoraWAN, Nb-IOT or others

Make an open source project

Release a tutorial on a project you've made

Create an FPGA Project

Do a robotics Project

Learn git

Make a wearable tech project with a dev board

Run out of memory in a project

Debug voltage drops

Make something for gaming

Do an IoT Project

Modify a bootloader

Make a project with a camera

Send data to an online server (eg. MQTT)

Use an Arduino to burn a bootloader

Make an interactive art piece with a dev board

Use RFID in a project

Use MIDI files in a project

Use a screen in a project

Send data wirelessly using BLE

Send data wirelessly using WiFi

Use a joystick or gamepad in a project

Make a project for everyday use

Fix something that's broken with a dev board

Use a PID Controller

Make a project that moves

Use an LED Matrix in a project

Help someone fix their code

Build your own enclosure for a project

Detect a person with a sensor

Learn Python skills

Teach a friend Raspi

Use an interrupt in a project

Use more than one motor in a project

Schedule a task for Raspi

Teach a friend Arduino

Use the real time clock for scheduling

Use LED strip in a project

Use TinkerCAD to code and simulate an arduino project

Make a gift for someone with a dev board

Use environmental sensors in a project

Use WiFi to send data from an ESP board

Use a sensor to trigger an action

Let the smoke out of a dev board accidentally

Get a project wrong and try again

Use a multimeter to measure voltage or current

Use an Arduino shield

Use a Raspi hat

Make an LED blink with Python

Use the Arduino Serial Monitor

Prototype an invention with cardboard

Use a multimeter to measure circuit continuity

Print 'Hello World' on Raspi

Use a servo motor in a project

Alter example Arduino code

Use Raspi command line for the first time

Learn Ohm's Law

Blink an LED

Flash a Raspi OS on an SD Card

Set up a Raspi for the first time

Use a button or a switch in a circuit

Learn to use a breadboard

Learn about Raspi OS

START HERE

Name: _____