ELECTRONICS

Skill Tree: Color in the Boxes

Color in the boxes of anything you've already completed, visualize your skills and identify your skill gaps. Get inspired to try new things and tailor the skill tree to suit your own journey by swapping in your own goals.

ADVANCED

(set your own goal)
(set your own goal)
(set your own goal)
(set your own goal)
(set your own goal)
(set your own goal)
Design a 3+ layer PCB
Create an FPGA Project
Use capacitive touch in a PCB design
Teach a class on Electronics
Make a switch mode power supply
Make something with PCB Art
Use a pick and place machine
Release a tutorial on a project you've made
Make an electronic sculpture
Design a PCB SAO or badge for a conference
Build a Radio Frequency (RF) Project
Make a PID circuit with Op-Amps
Order a PCB with your design
Apply solder paste to a PCB with a stencil
Use a frequency analyzer for a project
Use automatic gain control
Repair a mistake on a PCB
Filter unwanted noise from a signal
Use a MOSFET instead of a relay in a project
Learn PCB Design Software
Look at an audio input on an oscilloscope
Use a surge diode to project a circuit
Make a regulated power supply
Make an open source project
Measure voltage with an oscilloscope
Make something with a 7 segment display
Measure capacitor equivalent series resistance
Make an antenna
Make something with solar panels
Teach a friend an electronics skill
Use a crowbar circuit to protect against over voltage
Make a motor controller with a H Bridge
Make a counter with logic gates
Use a shift register in a project
Accidentally let out the magic smoke
Measure frequency with a multimeter or oscilloscope
Make your own USB cable
Build a robot
Use a 555 timer in a circuit
Use a relay to switch something on at a higher voltage
Make an Internet of Things (IoT) project
Amplify a sound or signal
Make a project with a Raspberry Pi
Learn to solder surface mount parts
Fix something that's broken
Use an LED matrix in a project
Turn something on using a sensor
Use a diode to protect your circuit from reverse voltages
Make an oscillator that makes noise
Measure current with a multimeter
Make a voltage divider to lower the voltage for a project
Use addressable RGB LEDs in a project
Turn a breadboard circuit into a schematic and vice versa
Get a circuit wrong and try again
Learn to read a datasheet
Learn about different types of batteries
Measure voltage with a multimeter
Learn to desolder a through hole component
Learn about voltage, current and resistance
Make something with Arduino or a dev board
Make a DIY capacitor
Learn about Ohm's Law
Learn to use wire strippers
Complete an electronics kit
Learn to use a breadboard
Learn to read a schematic
Light up an LED
Learn to solder and soldering safety

BASICS

START HERE

1 tile = 1 point

Total Score

Name: _____

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