PCB DESIGN

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

(set your own goal)
(set your own goal)
(set your own goal)
(set your own goal)
(set your own goal)

Use a reflow oven to solder a PCB
Contribue to someone else's open source project
Register a design with OSHWA
Teach a class on PCB Design
Sell a product on something other than tindie
Use a pick & place machine
Document your PCB Design
Use a solderpot
Sell a PCB on tindie
Mill a PCB from a copper sheet
Design a PCB with a display
Design a PCB with a real time clock
Design a PCB with a speaker or buzzer
Order an Aluminium PCB
Use a BGA in a PCB
Use gold fingers in a design
Use 0402 size parts on a PCB
Design a PCB with EEPROM
Design a PCB with a weird shape
Chemically etch a PCB yourself
Use thermal vias in a project
Design a Flex PCB
Design a two sided PCB
Use 0603 size SMD parts on a PCB
Design a PCB including both SMD and through hole parts
Design an enclosure for a PCB
Design a PCB with an embedded controller
Design a multilayer PCB with more than 2 layers
Use USB in a PCB design
Design a PCB Badge or business card
Use 0805 size SMD parts on a PCB
Use a hotplate to rework a PCB
Use a vacuum pen to assemble a PCB
Panelise a design with multiple parts
Assemble something with a QFP
Design with CMOS or TTL Logic with no firmware
Debug a project with a logic analyzer
Use an ultrasonic cleaner to clean a PCB
Use a solder paste stencil to assemble lots of PCBs
Get a PCB assembled by the factory
Repair a broken PCB
Assemble something with a QFN
Calculate trace width for power capacity
Debug a project with an oscilloscope
Make a design with RGB LEDs
Use SMD tweezers in a proejct
Use ENIG finish on a PCB
Use hot air for soldering SMD
Learn SMD component codes
Get something wrong and re-order a board
Teach a friend how to design a PCB
Hand solder SMD Parts
Design an SMD PCB
Get something wrong and apply a hot fix to the board
Use alcohol to clean a PCB
Design a PCB with Art on the Silkscreen layer
Order a PCB in any colour but Green
Test your PCB with a Multimeter
Use an Autorouting tool
Design a Through-Hole part PCB
Desolder / Resolder Through hole parts on a PCB
Order a PCB for the first time
Export Gerber Files
Import Schematic file to PCB
Create your own footprint
Learn PCB Software
Learn to read a schematic
Learn to Solder

BASICS

START HERE

Name: _____

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