Practical Electronics for Inventors by Scherz and Monk (introductory)

art of electronics by horowitz and hill (reference book)

Arduino blinking light projects

learn the basic electronic laws, ohms law, kirchoffs law, faraday's law.

Right to repair is fundamental to private property rights. It’s hard to find tech products that don’t have some sort of trap set that makes it impossible for you to repair the product you bought

Get a cheap electronics fun kit (a breadboard and a few components) to mess with easy basic circuits, a Hantek DSO5072P (it's the cheapest scope worth having) to see what actually happens inside the circuits and a small signal generator

>I'm new to electronics. Where to get started?

It is an art/science of applying principles to requirements.

Find problem, learn principles, design and verify solution, build, test, post results, repeat.

>Project ideas:

http://adafruit.com

http://instructables.com/tag/type-id/category-technology/

http://makezine.com/category/electronics/

Don't ask, roll:

https://github.com/Rocheez/4chan-electronics-challenges/blob/master/list-of-challenges.png.png (embed) (embed) (embed) (embed) (embed) (embed)

>Principles (by increasing skill level):

Mims III, Getting Started in Electronics

Geier, How to Diagnose & Fix Everything Electronic

Kybett & Boysen, All New Electronics Self-Teaching Guide

Scherz & Monk, Practical Electronics for Inventors

Horowitz and Hill, The Art of Electronics

>Design/verification tools:

LTSpice

MicroCap

falstad.com/circuit/circuitjs.html

NI Multisim

CircuitLab

iCircuit for Macs

KiCAD (PCB layout software, v5+ recommended)

>Components/equipment:

Mouser, Digi-Key, Arrow, Newark, LCSC (global)

RS Components (Europe)

eBay/AliExpress sellers, for component assortments/sample kits (caveat emptor)

Local independent electronics distributors

ladyada.net/library/procure/hobbyist.html

>Related YouTube channels:

mjlorton

w2aew

jkgamm041

eevblog

EcProjects

greatscottlab

Photonvids

sdgelectronics

BigClive

Ben Eater <https://www.youtube.com/channel/UCS0N5baNlQWJCUrhCEo8WlA>

>Li+/LiPo batteries

Read this first: http://www.elteconline.com/download/pdf/SAFT-RIC-LI-ION-Safety-Recommendations.pdf

buy a new battery, use that in the laptop. Crack open the other one, use the individual cells for shit and harvest thermistors and inductors

You can take apart and reverse engineer a PSU if you discharge them with a resistor first?

solid state logic and early computer concepts?

**Drones and remote controls:**

>How do I get started with racing drones?

https://oscarliang.com/mini-quad-racing-guide/

https://www.fpvknowitall.com/ultimate-fpv-shopping-list/

> How to build a racing drone (16 part video series from Joshua Bardwell)

https://www.youtube.com/playlist?list=PLwoDb7WF6c8mWARrcxtX\_G6yytK7QFHID

>What about planes?

https://www.flitetest.com/

>What about aerial photography, is DIY viable?

DJI is the only sensible option.

>I want a dirt cheap drone to fly around my yard/garden

Syma X5C

>I want a dirt cheap drone to fly inside my house

Eachine E010/Hubsan X4

>What are some good YouTube channels for learning or fun?

Joshua Bardwell - https://www.youtube.com/channel/UCX3eufnI7A2I7IkKHZn8KSQ

Painless360 - https://www.youtube.com/channel/UCp1vASX-fg959vRc1xowqpw

Flite Test - https://www.youtube.com/channel/UC9zTuyWffK9ckEz1216noAw

Peter Sripol - https://www.youtube.com/channel/UC7yF9tV4xWEMZkel7q8La\_w

7demo7 - https://www.youtube.com/channel/UCTa02ZJeR5PwNZK5Ls3EQGQ

ArxangelRC - https://www.youtube.com/channel/UCG\_c0DGOOGHrEu3TO1Hl3AA

RagTheNutsOff - https://www.youtube.com/channel/UCWP6vjgBw1y15xHAyTDyUTw