

Here you have a collection of long some not easy some pretty old videos and books about **computers and electronics**.

Warning! Do not pretend to watch them all. Simply choose a topic you like and jump over the videos. Maybe you find something interesting and suddenly want to learn more about it.

Have them present for future assignments.

VIDEOS

Information Theory:

<https://www.youtube.com/watch?v=p0ASFxKS9sg&list=PLP6PHJ8SLR6D4ytpHhZBdyIPNcazU5m7o>

Information Theory and Coding (for those who enjoyed the videos above):

https://www.youtube.com/playlist?list=PLzH6n4zXuckpKAj1_88VS-8Z6yn9zX_P6

How computers think:

<https://www.youtube.com/watch?v=dNRDvLACg5Q>

Why we use binary:

<https://www.youtube.com/watch?v=thrx3SBEP8>

How computers work:

<https://www.youtube.com/watch?v=nN9wNvEnn-Q>

How computer memory works the insides:

<https://www.youtube.com/watch?v=XETZoRYdtkw&t=6s>

Colossus the first electronic computer:

<https://www.youtube.com/watch?v=knXWMjlA59c>

How they design the computers they landed astronauts to the moon:

https://www.youtube.com/watch?v=xQ1O0XR_cA0

UNIX or what an operative system does:

<https://www.youtube.com/watch?v=tc4ROCJYbm0>

Looking at how things are built and work to learn how to design:

<https://www.youtube.com/playlist?list=PLvOISehNtuHsy89OdSxBajult8e5srVLA>

An introduction to Arduino towards future assignments

<https://www.youtube.com/watch?v=h1m6R9YW8c>

BOOKS:

On innovators and the history of the digital age (easy read, non-technical)

<http://www.goodreads.com/book/show/21856367-the-innovators>

Basic Arduino

<http://shop.oreilly.com/product/0636920021414.do>

Recipes on Arduino

<http://shop.oreilly.com/product/9780596802486.do>

AVR Programming (good to follow Neil on coding and flashing AVR's)

<http://shop.oreilly.com/product/0636920028161.do>

The Art of Electronics (This is an old book that keeps being redited. You can find references about everything from choosing batteries to really complex analog / digital electronics)

<http://artofelectronics.net/>