How a 4-cylinder engine works: <https://www.youtube.com/watch?v=DKF5dKo_r_Y>

Air-fuel ratios: <https://www.youtube.com/watch?v=9uFdrcPkMGE&feature=youtu.be&list=PLA554541553164D26>

How carburetors work: <https://www.youtube.com/watch?v=oIU-lGc3DL4>

Basic hybrid concepts: <https://www.youtube.com/watch?v=m2qvGJwTuBo>

Hybrid Series vs. Parallel:

* Overview: <https://www.youtube.com/watch?v=3T5ShFUkeFA>
* Series: <https://www.youtube.com/watch?v=axzTZZKm3mc>
* Parallel: <https://www.youtube.com/watch?v=wOZmG9cwUyU>

How 3 phase motor works: <https://www.youtube.com/watch?v=LtJoJBUSe28>

How brushless motors work: <https://www.youtube.com/watch?v=bCEiOnuODac>

ESC reference: <http://www.modelaircraft.org/insider/09_07/ESC.htm>

Word Vomit (Links)

* <http://www.explainthatstuff.com/how-carburetors-work.html>
* <https://www.youtube.com/watch?v=oIU-lGc3DL4>
* <https://www.zombiehunters.org/forum/viewtopic.php?f=45&t=24740>
* Ew

Engine Basics

* Intake
  + Intake of air and fuel mediated by valves
  + Valves open and closed by a rotating camshaft
  + Piston moves down at the same time as intake valve opens to let air and fuel in
* Compression
  + Mixture compressed when piston moves up
  + Compression ratio = volume before compression: volume after compression
* Ignition
  + by spark plug
  + Ignited air *pushes* piston down → power stroke
  + Movement of piston downwards rotates crankshaft, converting chemical energy into rotational energy
* Exhaust
  + Piston moves back up, pushing air out of the exhaust valve
* Motion is continuous due to:
  + Momentum from counterweights on crankshaft
  + Power strokes of 4 cylinders are offset so at least one cylinder has a power stroke at any given time