* OP CODES

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| Binary | Mnemonic | Short explanation |
| 1111 | STP | STOP THE COMPUTER |
| 0001 | ADD | ADD ACCUMULATOR TO OPERAND |
| 0010 | SUB | SUBTRACT OPERAND FROM ACCUMULATOR |
| 0011 | LOD | LOAD MEMORY INTO ACCUMULAOTR |
| 0100 | LDI | LOAD IMMEDIATE INTO ACCUMULATOR |
| 0101 | STO | STORE ACCUMULATOR MEMORY CELL |
| 0110 | INP | INPUT VALUE AND STORE IN ACCUMULATOR |
| 0111 | OUT | OUTPUT VALUE FROM ACCUMULATOR |
| 1000 | JMP | JUMP TO INSTRUCTION |
| 1001 | JNG | JUMP TO INSTRUCTION IF ACCUMULATOR < 0 |
| 1010 | JFR | JUMP TO INSTRUCTION IF ACCUMULATOR = 0 |

* Breakdown of computer component description
  + ATI Mobility Radeon GPU
    - 512 MB of memory is a more powerful computer than the main
    - Faster and has a better battery supply than the previous version.
  + 4GB Shared Dual Channel DDR2 at 800 Mhz
    - Over 1 billion bytes of storage
    - Processors have access to ram
    - Dual Channel DDR2 stands for two parts or double data rate.
  + 500GB SATA hard drive at 5400 RPM
    - SATA = serial advanced technology attachment
  + USB 2.0
    - universal serial bus
    - uses cable to transfer data . it can connect to the external hard drive, digital cameras, printers, scanner, etc.
  + IEEE 1394 Firewire
    - Another communication standard that provides very fast digitial data transfer and is commonly used to connect high definition camcorders and high performance disk drives.
  + McAfee Security Center
    - Utility program
* Sizes in prospective
  + A coil of wires nearly 1000 feet long
    - Distance traveled by an electron along the wire in the space of a microsecond
  + A short piece of wire
    - In the space of a nanosecond
  + A bag containing grains of pepper
    - In the space of a picoseconds
* Memory
  + A collection of cells each with a unique physical address; both addresses and contents are in binary
* Arithmetic/Logic Unit
  + Performs basic arithmetic operations such as adding
  + Performs logical operations such as and, or, and not
  + Most modern ALUs have a small amount of special storage units called registers
* Input unit
  + A device through which data and programs from the outside world are entered into the computer
* Output unit
  + A device through which results stored in the computer memory are made available to the outside world
* Control unit
  + The origanizing forec in the computer
* Instruction register (IR)
  + Contains the instruction that is being executed
* Program counter (PC)
  + Contains the address of the next instruction to be executed
* Central processing unit (CPU)
  + Contains the ALU and the control unit