

- 7 Addressing modes
- 8 General Purpose registers
- 8 Types of instructions

Nop
Load
Store
ALU
Clear / set flags
Jump
Stack
Subroutines

All of the instructions fit into one of the patterns bellow

- 1 - instruction, no argument
- 2 - instruction, register, any addressing mode
- 3 - instruction, any addressing mode, register
- 4 - instruction, register
- 5 - instruction, any addressing mode

All instructions have the bit 15:10 reserved for the opcode.

Opcode						Arguments									
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

If an instruction takes **no arguments**, the argument fields are **left blank**.

Opcode						N/a									
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

If an instruction supports **multiple addressing modes** (AM), it is given in bits 9:7.

Opcode						AM			Remaining Arguments						
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

If an instruction which uses AM's **requires rx and / or ry**, then they are included after the AM. If they are **not needed**, they are **left blank**.

If an instruction uses an AM which uses an **immediate value or address**, it is included in the **next word of memory**.

Opcode						AM			rx			ry			N/a
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

If an instruction **only requires a register** as an argument, it is provided **after the opcode**, and the rest of the bits are **left blank**.

Opcode						rx			N/a						
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0