

# Very simple example of expanding opcodes, and various addressing modes

6-bit instruction, 2-bit addresses, 2-bit word size, one accumulator

<b>Machine language</b>	<b>mnemonic</b>	<b>meaning</b>
00 A1 A2	ADD A1 A2	$AC = M[A1] + M[A2]$
01 A1 A2	SUB A1 A2	$AC = M[A1] - M[A2]$
10 A1 V	STOREIM A1 V	$M[A1] = V$
11 00 A1	LOAD A1	$AC = M[A1]$
11 01 A1	STORE A1	$M[A1] = AC$
11 10 A1	LOADI A1	$AC = M[M[A1]]$
11 11 00	SKIPZERO	Skip if $AC == 0$
11 11 01	SKIPNEG	Skip if $AC < 0$
11 11 10	CLEAR	$AC = 0$
11 11 11	HALT	Halt