

## Suggested ALU control signals

instruction	MemReadEn	MemToReg	MemWriteEn	ALUSrc	RegWrite	MemType	BEQ	BNE	JAL	JALR	Mem_Read
ADDW	0	0	0	0	1	X	0	0	0	0	0
ADDIW	0	0	0	1	1	X	0	0	0	0	0
AND	0	0	0	0	1	X	0	0	0	0	0
ANDI	0	0	0	1	1	X	0	0	0	0	0
BEQ	0	X	0	0	0	X	1	0	0	0	0
BNE	0	X	0	0	0	X	0	1	0	0	0
JAL	0	1	0	1	1	X	0	0	1	0	0
JALR	0	1	0	1	1	X	0	0	0	1	0
LH	1	1	0	1	1	1	0	0	0	0	1
LUI	0	0	0	0	1	X	0	0	0	0	0
LW	1	1	0	1	1	2	0	0	0	0	1
XOR	0	0	0	0	1	X	0	0	0	0	0
OR	0	0	0	0	1	X	0	0	0	0	0
ORI	0	0	0	1	1	X	0	0	0	0	0
SLT	0	0	0	0	1	X	0	0	0	0	0
SLL	0	0	0	0	1	X	0	0	0	0	0
SRL	0	0	0	0	1	X	0	0	0	0	0
SB	0	X	1	1	0	0	0	0	0	0	0
SW	0	X	1	1	0	2	0	0	0	0	0
SUB	0	0	0	0	1	X	0	0	0	0	0