

Name	Type	Function	regRead	RegWr	ExtOpJ	ExtOpI	ExtOpSA	ALUSrc	PCAdderSrc	ALUOp	MemRd	MemWr	WBData	EnStack	PCSrc
R-Type Instructions															
AND	2'b00	5'b000000	0	1	x	x	x	0	x	AND	0	0	1	0	0
ADD	2'b00	5'b000001	0	1	x	x	x	0	x	ADD	0	0	1	0	0
SUB	2'b00	5'b000010	0	1	x	x	x	0	x	SUB	0	0	1	0	0
CMP	2'b00	5'b000011	0	0	x	x	x	0	x	SUB	0	0	1	0	0
I-Type Instructions															
ANDI	2'b10	5'b000000	x	1	x	0 (un)	x	1	x	AND	0	0	1	0	0
ADDI	2'b10	5'b000001	x	1	x	1 (s)	x	1	x	ADD	0	0	1	0	0
LW	2'b10	5'b000010	x	1	x	1 (s)	x	1	x	ADD	1	0	0	0	0
SW	2'b10	5'b000011	1	0	x	1 (s)	x	1	x	ADD	0	1	x	0	0
BEQ	2'B10	5'b00100	1	0	x	1 (s)	x	0	if zero flag -> 1	SUB	0	0	x	0	if zero flag -> 1
									else -> x						else -> 0
J-Type Instructions															
J	2'b01	5'b000000	x	0	1 (s)	x	x	x	0	x	0	0	x	0	1
Jal	2'b01	5'b000001	x	0	1 (s)	x	x	x	0	x	0	0	x	1	1
S-Type Instructions															
SLL	2'b11	5'b000000	x	1	x	x	0 (un)	2	x	SLL	0	0	1	0	0
SLR	2'b11	5'b000001	x	1	x	x	0 (un)	2	x	SLR	0	0	1	0	0
SLLV	2'b11	5'b000010	0	1	x	x	x	0	x	SLL	0	0	1	0	0
SLRV	2'b11	2'b000011	0	1	x	x	x	0	x	SLR	0	0	1	0	0