

MAIN CONTROLLER TABLE

INSTRUCTION	OPCODE INPUT	MUX_1		MUX_2		MUX_3		MUX_4		MUX_5		MUX_6		MUX_7		MUX_8		MUX_9		MUX_10		MUX_11		MUX_12		MUX_13		MUX_14		MUX_15		MUX_16		MUX_17		MEM		IR		DR		RF		ResA		ResB		ResC				
		S1	S2	S3	S4	S5	S6	S7	P1	P0	S9	M1	M0	S11	S12	S13	S14	S15	S16	S17	MR	MW	IR	DW	RW	AW	BW	CW	IR	DW	RW	AW	BW	CW	MR	MW	IR	DW	RW	AW	BW	CW										
ADD	R-TYPE 0001	0	0	0	0	0	X	X	0	0	0	0	X	X	X	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
ADC	R-TYPE 0001	0	0	0	0	0	X	X	0	0	0	0	X	X	X	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
ADZ	R-TYPE 0001	0	0	0	0	0	X	X	0	0	0	0	X	X	X	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
ADL	R-TYPE 0001	0	0	0	0	0	X	X	0	0	0	0	X	X	X	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
NDU	R-TYPE 0010	0	0	0	0	0	X	X	0	0	0	0	X	X	X	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
NDC	R-TYPE 0010	0	0	0	0	0	X	X	0	0	0	0	X	X	X	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
NDZ	R-TYPE 0010	0	0	0	0	0	X	X	0	0	0	0	X	X	X	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
ADI	I-TYPE 0000	0	0	0	X	0	0	X	0	0	1	0	X	X	X	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
LW	I-TYPE 0111	0	X	0	X	0	0	X	0	0	1	0	0	X	X	0	1	0	X	X	1	0	X	X	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
SW	I-TYPE 0101	0	X	0	1	0	0	X	0	0	1	0	0	X	X	0	1	0	X	X	1	0	X	X	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
BEQ	I-TYPE 1000	0	0	0	1	X	0	X	X	0	X	0	X	X	X	0	1	0	X	X	1	0	X	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
JUR	I-TYPE 1010	X	0	0	X	0	1	X	1	1	X	1	X	X	X	0	1	X	X	1	0	X	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1		
LHI	I-TYPE 0000	0	0	X	X	0	1	X	X	X	X	X	X	X	X	1	X	X	1	0	X	1	X	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
LM	I-TYPE 1100	0	X	X	1	1	X	X	X	X	X	X	1	X	1	1	0	X	X	1	0	X	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
SM	J-TYPE 1101	0	X	1	1	X	1	X	X	X	X	X	1	1	1	X	X	0	X	X	1	0	X	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
JAL	J-TYPE 1001	0	0	X	X	0	1	X	1	1	X	1	X	X	X	0	1	X	1	0	X	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	
JRI	J-TYPE 1011	0	0	X	1	X	1	X	0	0	1	0	X	X	X	0	1	0	X	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	