

				Inputs				Control Outputs										Input Bits				Output Bits	
INUM	Instruction	Mnemonic	Format	opcode	func3	func7	func6	RFW	ALUOp	ALUSrcA	ALUSrcB	PCsel	WdSel	BRop	MST	MLD	MSZ	opcode	func3	func7	func6	Project06	
0	addi	ADDI	I	0010011	000	xxxxxxx	xxxxxx	1	000	0	001	00	00	00	0	0	00	0b0010011	0b000	0bxxxxxxx	0bxxxxxx	0b100000010000000000	v2.0 raw
1	add	ADDR	R	0110011	000	0000000	xxxxxx	1	000	0	000	00	00	00	0	0	00	0b0110011	0b000	0b0000000	0bxxxxxx	0b100000000000000000	0x20400
2	jal	JAL	J	1101111	xxx	xxxxxxx	xxxxxx	1	000	1	011	01	01	00	0	0	00	0b1101111	0bxxx	0bxxxxxxx	0bxxxxxx	0b100010101010100000	0x2D040
3	jalr	JALR	I	1100111	000	xxxxxxx	xxxxxx	1	000	0	001	01	01	00	0	0	00	0b1100111	0b000	0bxxxxxxx	0bxxxxxx	0b100000010101000000	0x20540
4	mul	MUL	R	0110011	000	0000001	xxxxxx	1	001	0	000	00	00	00	0	0	00	0b0110011	0b000	0b0000001	0bxxxxxx	0b100100000000000000	0x24000
5	sub	SUBR	R	0110011	000	0100000	xxxxxx	1	010	0	000	00	00	00	0	0	00	0b0110011	0b000	0b0100000	0bxxxxxx	0b101000000000000000	0x28000
6	sll	SLL	R	0110011	001	0000000	xxxxxx	1	011	0	000	00	00	00	0	0	00	0b0110011	0b001	0b0000000	0bxxxxxx	0b101100000000000000	0x2C000
7	srl	SRL	R	0110011	101	0000000	xxxxxx	1	100	0	000	00	00	00	0	0	00	0b0110011	0b101	0b0000000	0bxxxxxx	0b110000000000000000	0x30000
8	slli	SLLI	I	0010011	001	0000000	shamt	1	011	0	001	00	00	00	0	0	00	0b0010011	0b001	0b0000000	0bshamt	0b101100010000000000	0x2C400
9	srlr	SRLI	I	0010011	101	0000000	shamt	1	100	0	001	00	00	00	0	0	00	0b0010011	0b101	0b0000000	0bshamt	0b110000010000000000	0x30400
10	srai	SRAI	I	0010011	101	0100000	shamt	1	101	0	001	00	00	00	0	0	00	0b0010011	0b101	0b0100000	0bshamt	0b110100010000000000	0x34400
11	beq	BEQ	B	1100011	000	xxxxxxx	xxxxxx	0	000	1	010	10	01	00	0	0	00	0b1100011	0b000	0bxxxxxxx	0bxxxxxx	0b000010101001000000	0x2A40
12	bne	BNE	B	1100011	001	xxxxxxx	xxxxxx	0	000	1	010	10	01	01	0	0	00	0b1100011	0b001	0bxxxxxxx	0bxxxxxx	0b000010101001010000	0x2A50
13	blt	BLT	B	1100011	100	xxxxxxx	xxxxxx	0	000	1	010	10	01	10	0	0	00	0b1100011	0b100	0bxxxxxxx	0bxxxxxx	0b000010101001100000	0x2A60
14	bge	BGE	B	1100011	101	xxxxxxx	xxxxxx	0	000	1	010	10	01	11	0	0	00	0b1100011	0b101	0bxxxxxxx	0bxxxxxx	0b000010101001110000	0x2A70
15	ld	LD	I	0000011	011	xxxxxxx	xxxxxx	1	000	0	001	00	10	00	0	1	00	0b0000011	0b011	0bxxxxxxx	0bxxxxxx	0b100000010010000100	0x20484
16	lw	LW	I	0000011	010	xxxxxxx	xxxxxx	1	000	0	001	00	10	00	0	1	01	0b0000011	0b010	0bxxxxxxx	0bxxxxxx	0b100000010010000101	0x20485
17	lb	LB	I	0000011	000	xxxxxxx	xxxxxx	1	000	0	001	00	10	00	0	1	10	0b0000011	0b000	0bxxxxxxx	0bxxxxxx	0b100000010010000110	0x20486
18	sd	SD	S	0100011	011	xxxxxxx	xxxxxx	0	000	0	100	00	00	00	1	1	00	0b0100011	0b011	0bxxxxxxx	0bxxxxxx	0b000001000000001100	0x100C
19	sw	SW	S	0100011	010	xxxxxxx	xxxxxx	0	000	0	100	00	00	00	1	1	01	0b0100011	0b010	0bxxxxxxx	0bxxxxxx	0b000001000000001101	0x100D
20	sb	SB	S	0100011	000	xxxxxxx	xxxxxx	0	000	0	100	00	00	00	1	1	10	0b0100011	0b000	0bxxxxxxx	0bxxxxxx	0b000001000000001110	0x100E
21	and	AND	R	0110011	111	0000000	xxxxxx	1	110	0	000	00	00	00	0	0	00	0b0110011	0b111	0b0000000	0bxxxxxx	0b111000000000000000	0x38000
22	or	OR	R	0110011	110	0000000	xxxxxx	1	111	0	000	00	00	00	0	0	00	0b0110011	0b110	0b0000000	0bxxxxxx	0b111000000000000000	0x3C000