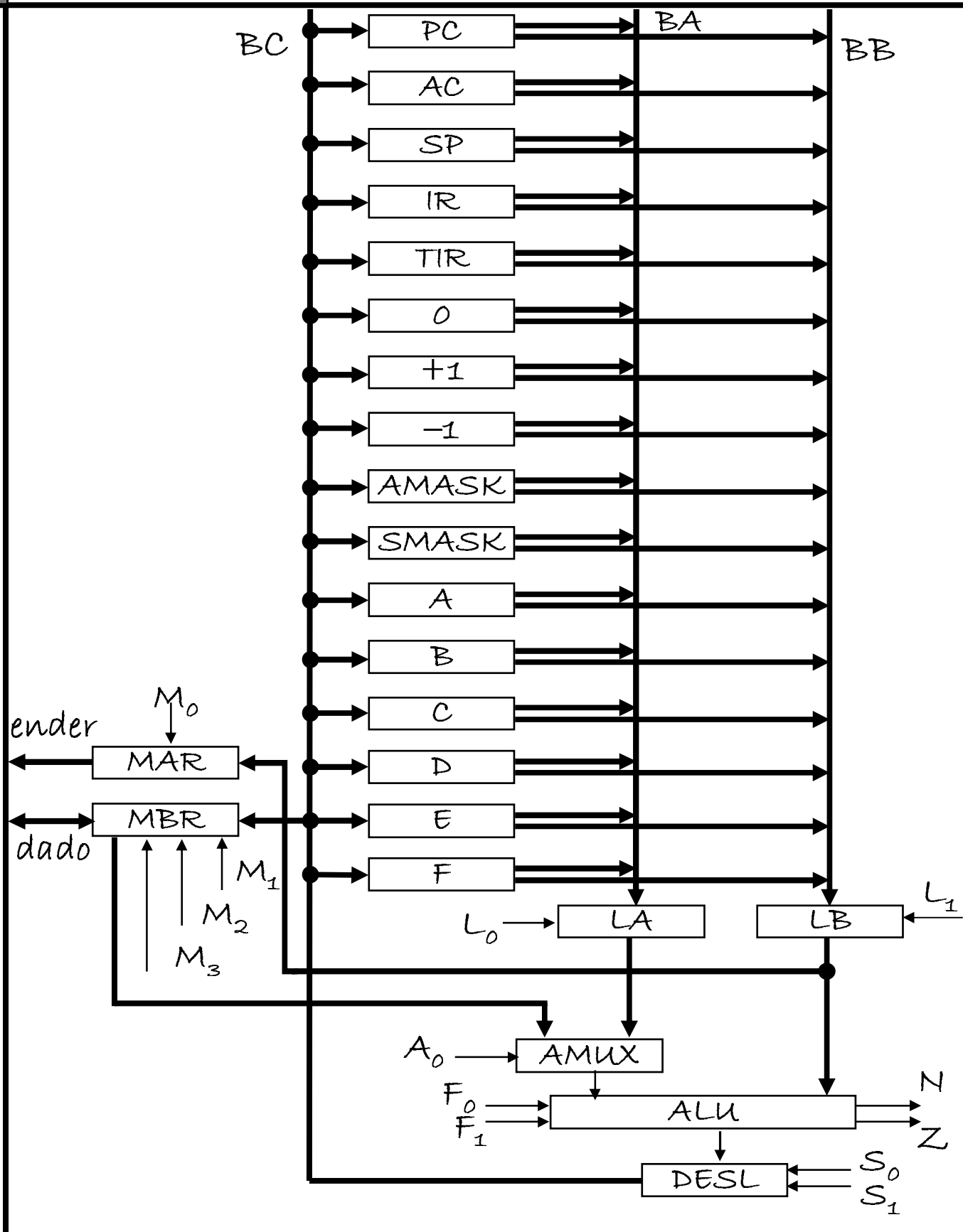


UNIDADE DE CONTROLE



UNIDADE DE CONTROLE

• 0000xxxxxxxxxxxxx	LODD	AC := M[x]
• 0001xxxxxxxxxxxxx	STOD	M[x] := AC
• 0010xxxxxxxxxxxxx	ADDD	AC := AC + M[x]
• 0011xxxxxxxxxxxxx	SUBD	AC := AC - M[x]
• 0100xxxxxxxxxxxxx	JPOS	se AC > 0 então PC := x
• 0101xxxxxxxxxxxxx	JZER	se AC = 0 então PC := x
• 0110xxxxxxxxxxxxx	JUMP	PC := x
• 0111xxxxxxxxxxxxx	LOCO	AC := x
• 1000xxxxxxxxxxxxx	LODL	AC := M[SP + x]
• 1001xxxxxxxxxxxxx	STOL	M[SP + x] := AC
• 1010xxxxxxxxxxxxx	ADDL	AC := AC + M[SP+x]
• 1011xxxxxxxxxxxxx	SUBL	AC := AC - M[SP+x]
• 1100xxxxxxxxxxxxx	JNEG	se AC < 0 então PC := x
• 1101xxxxxxxxxxxxx	JNZE	se AC /= 0 então PC := x
• 1110xxxxxxxxxxxxx	CALL	SP := SP - 1; M[SP] := PC;
•		PC := x
• 1111000000000000	PSHI	SP := SP - 1; M[SP] := M[AC]
• 1111001000000000	POPI	M[AC] := M[SP]; SP := SP + 1
• 1111010000000000	PUSH	SP := SP - 1; M[SP] := AC
• 1111011000000000	POP	AC := M[SP]; SP := SP + 1
• 1111100000000000	RETN	PC := M[SP]; SP := SP + 1
• 1111101000000000	SWAP	TMP := AC; AC := SP; SP := TMP
• 11111100yyyyyyyyy	INSP	SP := SP + y
• 11111110yyyyyyyyy	DESP	SP := SP - y

UNIDADE DE CONTROLE

• 0000	ADD	$r1 := r1 + r2$
• 0001	AND	$r1 := r1 . r2$
• 0010	MOVE	$r1 := r2$
• 0011	COMPL	$r1 := \text{inv}(r2)$
• 0100	LSHIFT	$r1 := \text{lshift}(r2)$
• 0101	RSHIFT	$r1 := \text{rshift}(r2)$
• 0110	GETMBR	$r1 := \text{MBR}$
• 0111	TEST	if $r2 < 0$ then $N := \text{true};$
•		if $r2 = 0$ then $Z := \text{true}$
• 1000	BEGRD	$\text{MAR} := r1; \text{rd}$
• 1001	BEGWR	$\text{MAR} := r1;$ $\text{MBR} := r2; \text{wr}$
• 1010	CONRD	RD
• 1011	CONWR	WR
• 1100		
• 1101	NJUMP	if N then goto r
• 1110	ZJUMP	if Z then goto r
• 1111	UJUMP	goto r