Instruction:	Machine Code Format:	Functionality:	Range:
LOAD Rd,Ra	x 011 dd aa	$Rd = MEM[$Ra]	Rd:{R0,R1,R2,R3}
STR Rd,Ra	x 100 dd aa	MEM[$Ra] = $Rd	Rd:{R0, R1, R2, R3}
INIT Rd,imm	x 010 ddd i	$Rd = imm	Rd:{R0...R7}; imm[0,1]
ADDI Rd, imm	x 00 dd iii	$Rd = $Rd+imm	Rd:{R0..R4}; imm[-4,3]
COMP Rd	x 0000 ddd	$Rd = [2's complement]	Rd:{R0...R7}
MOV Rd, Rs	x 1 ddd sss	$Rd = $Rs	Rd: {R0...R7}
SLT Rd, Rs	x 0 ddd sss	$Rd < $Rs,Branch = 1	Rd:{R0...R7}
ADD Rd, Rs	x 110 dd ss	$Rd = $Rd + $Rs	Rd:{R0...R3}
LSL Rd,imm	x 01 dd iii	$Rd = $Rd <<imm	Rd:{R0...R3}; imm[0,7]
B imm	x 10 iiiii	ifBranch=1(PC+=imm)	imm[-16,15]
BZ imm	x 101 iiii	if $branch = 0, PC = PC + imm, else PC++	imm[-8, 7]
j imm	x 11 iiiii	PC = PC+imm	imm[-16,15]
END	11111111	Finishes Program	

X = parity bit