|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Instruction | OpCode | R-Type | | | I-Type | | |
| X | X | Rs1 | Rs2 | Rdst | Rs | Rdst | Offset |
| NOP |  |  |  |  |  |  |  |
| HLT |  |  |  |  |  |  |  |
| SETC |  | XXX | XXX | XXX |  |  |  |
| NOT Rdst |  | XXX | Rdst | XXX |  |  |  |
| INC Rdst |  | XXX | Rdst | XXX |  |  |  |
| OUT Rdst |  | Rdst | XXX | XXX |  |  |  |
| IN Rdst |  | XXX | XXX | Rdst |  |  |  |
| MOV Rsrc, Rdst |  | Rsrc | XXX | Rdst |  |  |  |
| SWAP Rsrc, Rdst |  | Rsrc | Rdst | XXX |  |  |  |
| ADD Rdst,  Rsrc1, Rsrc2 |  |  |  |  |  |  |  |
| SUB Rdst,  Rsrc1, Rsrc2 |  |  |  |  |  |  |  |
| AND Rdst,  Rsrc1, Rsrc2 |  |  |  |  |  |  |  |
| IADD Rdst, Rsrc  ,Imm |  |  |  |  |  |  |  |
| PUSH Rdst |  |  |  |  |  |  |  |
| POP Rdst |  |  |  |  |  |  |  |
| LDM Rdst, Imm |  |  |  |  |  |  |  |
| LDD Rdst,  offset(Rsrc) |  |  |  |  |  |  |  |
| STD Rsrc1,  offset(Rsrc2) |  |  |  |  |  |  |  |
| JZ Imm |  |  |  |  |  |  |  |
| JN Imm |  |  | | |  | | |
| JC Imm |  |  | | |  | | |
| JMP Imm |  |  | | |  | | |
| CALL Imm |  |  | | |  | | |
| RET |  |  | | |  | | |
| INT index |  |  | | |  | | |
| RTI |  |  | | |  | | |
| Reset |  |  | | |  | | |
| Interrupt |  |  | | |  | | |