| Instruction | Opcode | Opcode Hex | Reg_Dst | Write_Enb | ALU_OP0 | ALU_OP1 | ALU_OP2 | ALU_Src | Store_Enb | Load_Enb | RAM_to_Reg | BEQ_Control | JUMP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ADD | "000" | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SUB | "001" | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MULi | "010" | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| DIVi | "011" | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| LW | "100" | 4 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| SW | "101" | 5 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| BEQ | "110" | 6 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| J | "111" | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |