| | OPCODE | JAL | WRITE_REG | MUX ULA | OPT ULA | WRITE RAM | DATA_REG | BRANCH | JR | BPOS | LW |
|------|---------|-----|-----------|---------|---------|-----------|----------|--------|----|------|----|
| ADD | 0.0.0.1 | 0 | 1 | 1 | 0.0.0 | 0 | 0.1 | 0 | 0 | 0 | 0 |
| SUB | 0.0.1.0 | 0 | 1 | 1 | 0.0.1 | 0 | 0.1 | 0 | 0 | 0 | 0 |
| MUL | 0.0.1.1 | 0 | 1 | 1 | 0.1.0 | 0 | 0.1 | 0 | 0 | 0 | 0 |
| AND | 0.1.00 | 0 | 1 | 1 | 0-1.1 | 0 | 0.1 | 0 | 0 | 0 | 0 |
| OR | 0.1.0.1 | 0 | 1 | 1 | 1.0.0 | 0 | 0.1 | 0 | 0 | 0 | 0 |
| BEQ | 0.1.1.0 | 0 | 0 | 1 | 0.0.1 | 0 | 0.1 | 1 | 0 | 0 | 0 |
| JAL | 0.1.1.1 | 1 | 0 | 1 | 1-1.1 | 0 | 0.1 | 0 | 0 | 0 | 0 |
| BPOS | 1.0.0.0 | 0 | 0 | 1 | 1-1.1 | 0 | 0.1 | 0 | 0 | 1 | 0 |
| sw | 1.0.0.1 | 0 | 0 | 1 | 1-1.1 | 1 | 0.1 | 0 | 0 | 0 | 0 |
| LW | 1.0.1.0 | 0 | 1 | 1 | 0.0.0 | 0 | 0.0 | 0 | 0 | 0 | 1 |
| ADDI | 1.0.1.1 | 0 | 1 | 0 | 0.0.0 | 0 | 0.1 | 0 | 0 | 0 | 0 |
| JR | 1.1.0.0 | 0 | 0 | 1 | 1-1.1 | 0 | 0.1 | 0 | 1 | 0 | 0 |
| HALT | 0.0.0.0 | 0 | 0 | 1 | 1-1.1 | 0 | 0.0 | 0 | 0 | 0 | 0 |