|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| State | Pseudocode | IRLd | RegSel | RegWr | RegEn | ALd | BLd | ALUOp | ALUEn | MALd | MemWr | MemEn | ImmSel | ImmEn | μBr | Next State |
| FETCH0: | MA ← PC;A ← PC | \* | PC | 0 | 1 | 1 | \* | \* | 0 | 1 | \* | 0 | \* | 0 | N | \* |
|  | IR ← Mem | 1 | \* | \* | 0 | 0 | \* | \* | 0 | 0 | 0 | 1 | \* | 0 | S | \* |
|  | PC ← A+4 | 0 | PC | 1 | 1 | 0 | \* | INC\_A\_4 | 1 | \* | \* | 0 | \* | 0 | D | \* |
| . . . |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NOP0: | microbranchback to FETCH0 | \* | \* | \* | 0 | \* | \* | \* | 0 | \* | \* | 0 | \* | 0 | J | FETCH0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |