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| State | Pseudocode | IR Ld | Reg  Sel | Reg  Wr | Reg En | A Ld | B Ld | ALUOp | ALU En | MA Ld | Mem  Wr | Mem En | Imm  Sel | Imm En | 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 | \* |
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| NOP0: | microbranch  back to FETCH0 | \* | \* | \* | 0 | \* | \* | \* | 0 | \* | \* | 0 | \* | 0 | J | FETCH0 |
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