

- Combinational circuits: Outputs are a *direct* function of inputs. Combinational circuits have no memory.
- Sequential circuits: Outputs are a function of inputs and the current state. State is retained in memory. Combinational circuits have memory.

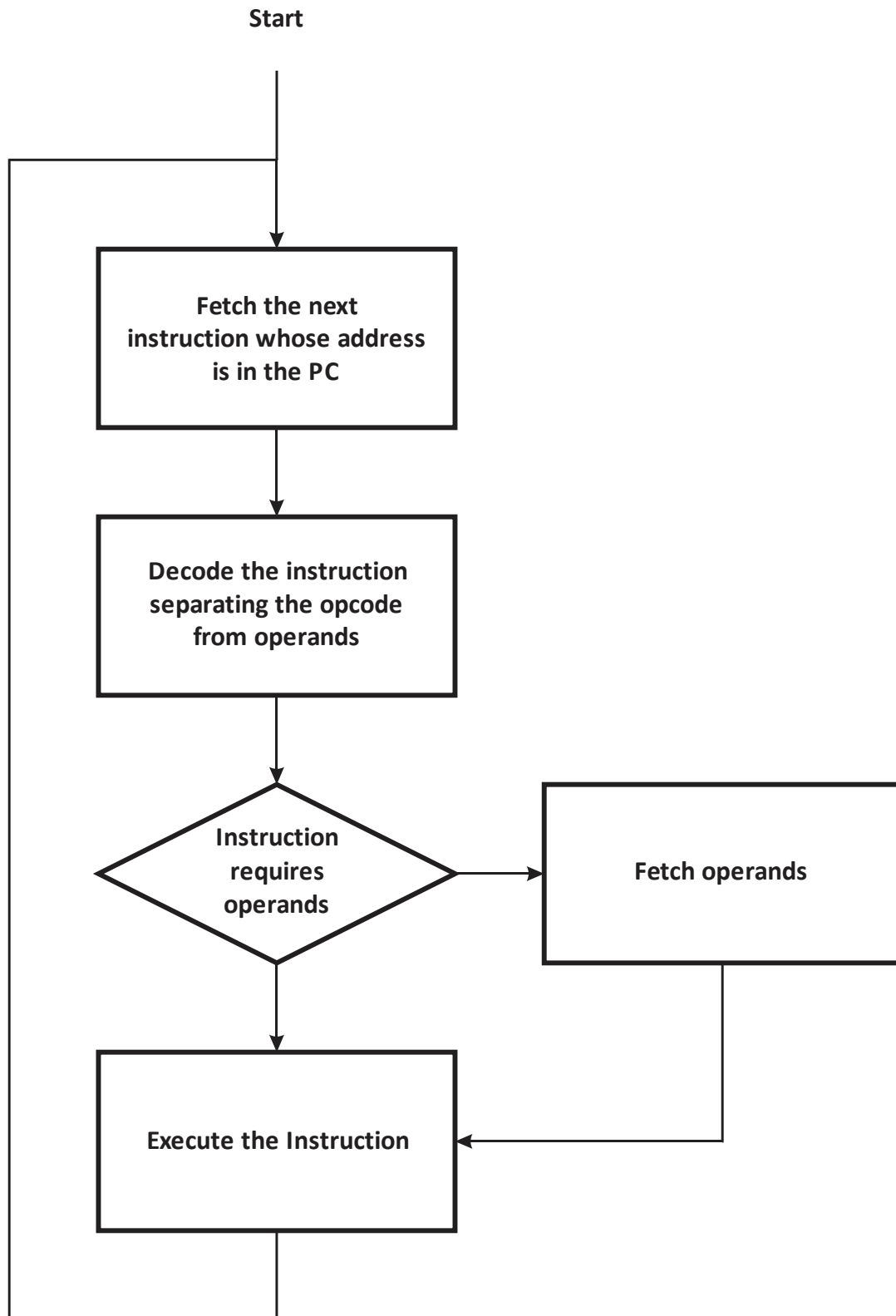


Figure 4.11 The Fetch-Decode-Execute Cycle

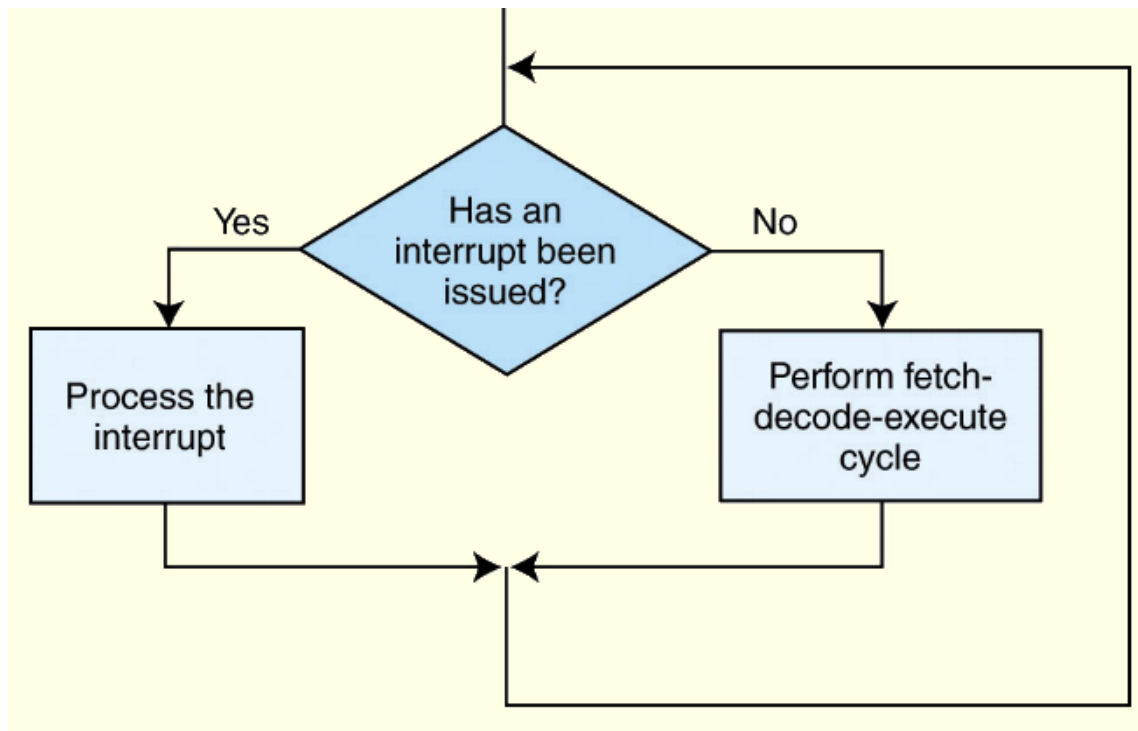


Figure 4.12 The Fetch-Decode-Execute Cycle with Interrupt Checking