**Traffic Light System:**

Draw a flowchart representing the sequence of traffic light changes.

Indicate conditions or timers that trigger a change in the traffic light state.

**Elevator Control System:**

Design a flowchart that details the behavior of an elevator in response to call buttons and floor selection.

Show the sequences in which the elevator serves multiple requests.

**Temperature Control System:**

Represent the decision-making process of a thermostat in a flowchart, considering temperature thresholds.

Display actions like starting the heater or cooler.

**Digital Watch System:**

Chart out the modes of the watch and the transitions between them, like switching from time display to alarm setting.

Detail how input buttons influence the mode transitions.

**Password System:**

Create a flowchart detailing the process from inputting a password to either granting or denying access.

Represent actions after consecutive incorrect attempts.

**Vending Machine:**

Illustrate the sequence of actions a vending machine takes from receiving money, making a selection, dispensing an item, and returning change.

Show error or alert states, like if the machine is out of a selected product.

**Music Player Interface:**

Design a flowchart detailing the operations of a music player, like play, pause, skip, or rewind.

Incorporate decision points based on user inputs.

**Automatic Door System:**

Represent how an automatic door detects an approaching person and how it decides to open or close.

Consider safety mechanisms, like what happens if an obstruction is detected.

**Battery Charging System:**

Chart out the stages of battery charging and the conditions that transition the battery between charging, full, and discharging states.

Illustrate alerts like "overheating" or "battery low".

**Game Design:**

For a simple game like tic-tac-toe, draw a flowchart representing the game's flow from start, taking turns, checking for a win or draw, to end.

Indicate player actions and system responses.

**Guidelines**

Start Simple: Begin with high-level processes or states and then drill down into specifics.

Use Standard Symbols: Utilize ovals for start/end, rectangles for processes or actions, diamonds for decisions, and arrows to show flow.

Keep It Clear: Avoid over-complicating. If a section gets too complex, consider breaking it out into a sub-flowchart.

Label Everything: Every process, decision, and arrow should be clearly labeled to ensure understanding.

Review and Refine: After drafting, review the flowchart for any missing steps or logic errors. Iterate and refine as needed.