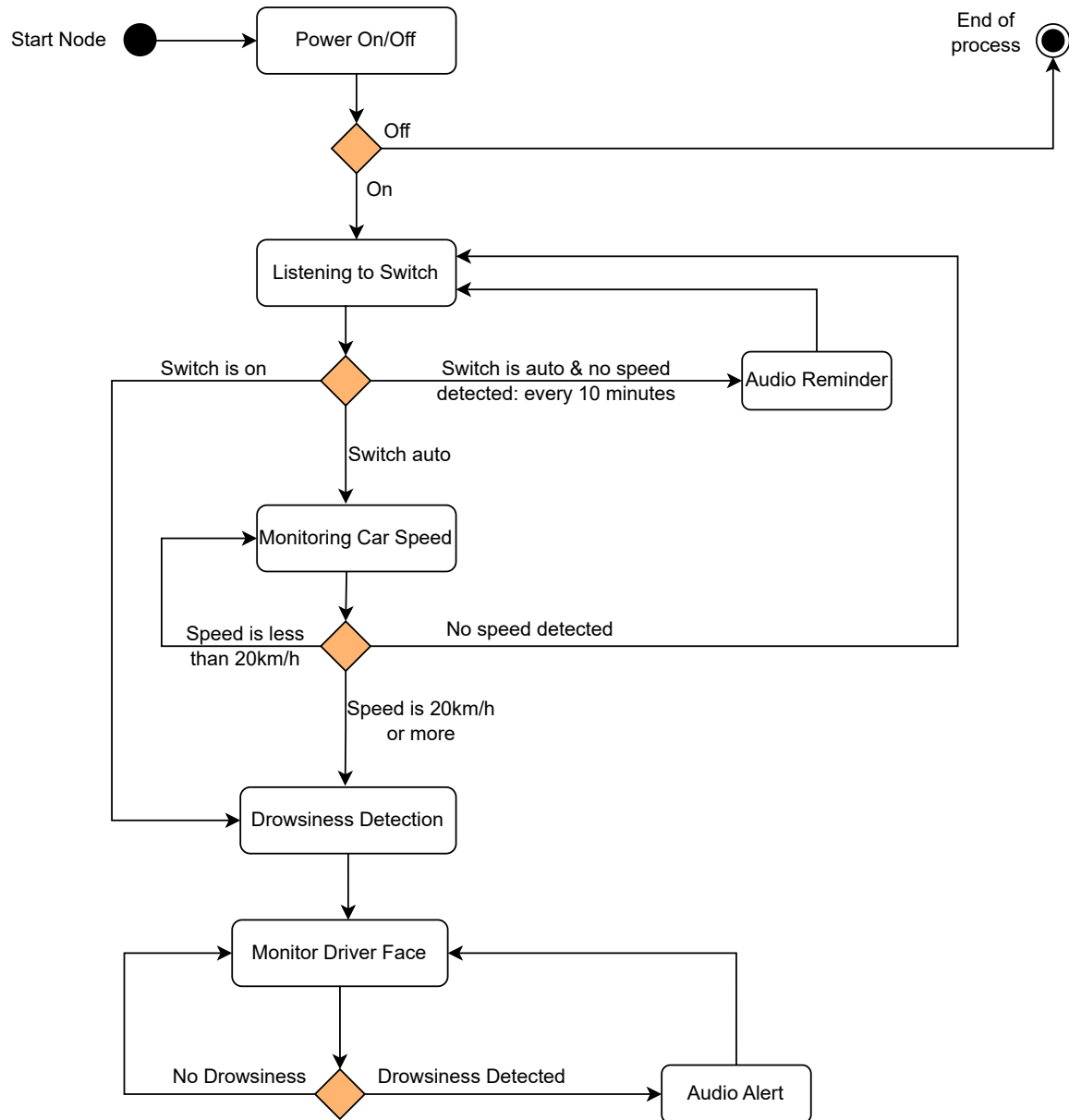


# IFS Activity Diagram



## Activities Explanation

- **Power On/Off:** The driver decides whether to power the system on or off.
  - **Off:** The process ends.
  - **On:** The system transitions to **Listening to Switch**.
- **Listening to Switch:** The system monitors the switch to check its status.
  - **Auto:** Activates **Monitoring Car Speed**. If speed is not detected, audio reminders are send every 10 minutes to turn the switch on.
  - **On:** Activates **Drowsiness Detection**.
- **Monitoring Car Speed:** It use GPS module to monitor the car speed and activate **Drowsiness Detection** if the car speed is 20 km/h or more.
  - If car speed is 20 km/h or more: Activate **Drowsiness Detection**.
  - If car speed is less than 20 km/h: Loop back to **Monitoring Car Speed**.
  - If car speed is not detected for any reason: Loop back to **Listening to Switch**.
- **Audio Reminder:** The speaker plays the audio reminder and loops back to **Listening to Switch** again.
- **Drowsiness Detection:** This activates the monitoring system and transitions directly to **Monitor Driver Face**.
- **Monitor Driver Face:** The system observes the driver's face using the camera.
  - **If drowsiness is detected:** Send an **Audio Alert** to warn the driver.
  - **If drowsiness is not detected:** Loop back to **Monitor Driver Face** to continue monitoring.
- **Audio Alert:** The speaker outputs a warning sound to alert the driver then loops back to **Monitor Driver Face**.