

# Fire Alarm System

**SFWR ENG 3KO4 (Software Development)**

**McMaster University**

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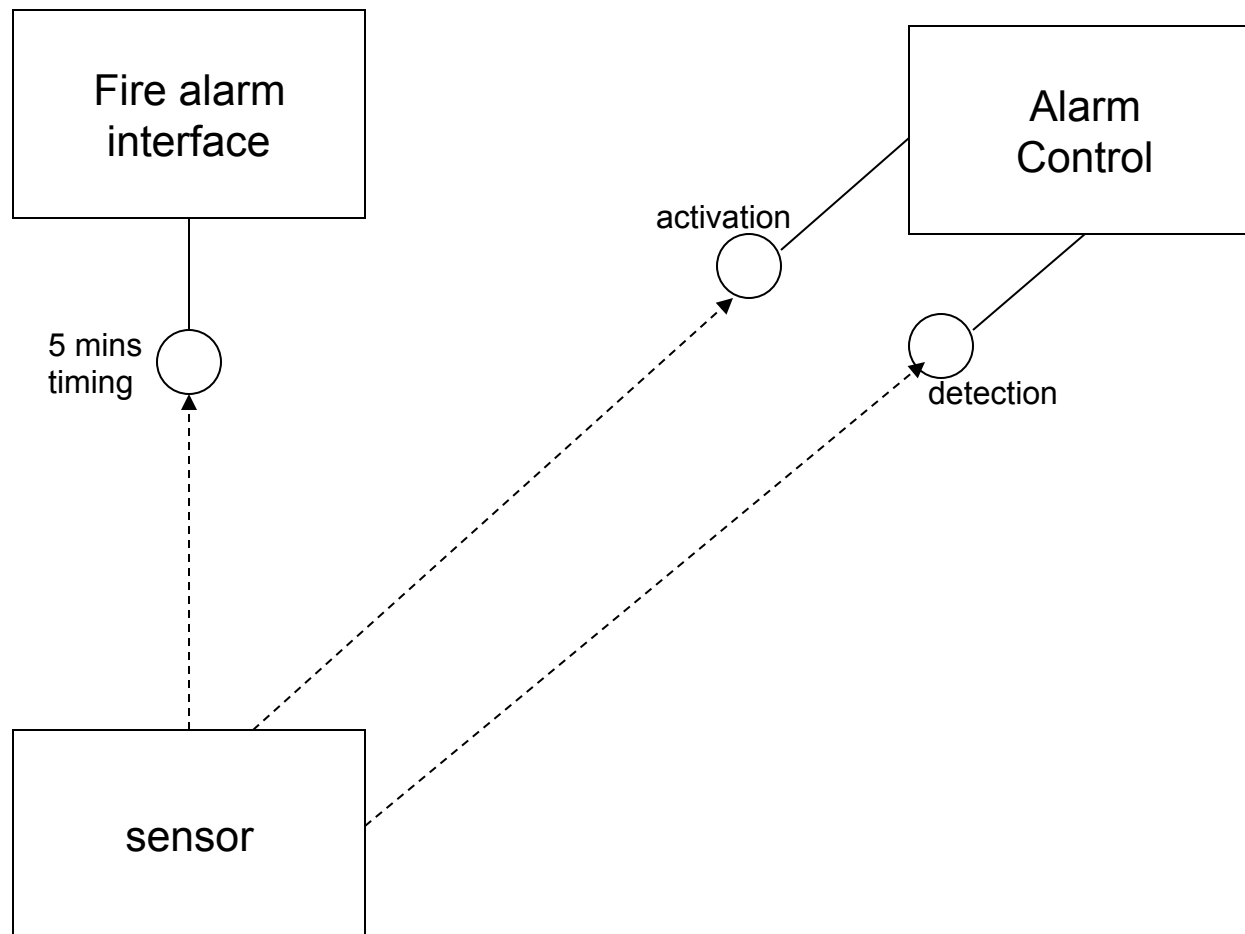
We intend to design a Fire Alarm System for a building with **two apartment units**. The software specification for the alarm system is as follows:

- The alarm system has an ON/OFF switch to activate or deactivate the whole system.
- Each apartment unit has a smoke sensor.
- When the smoke is sensed in one apartment unit, the alarm in that unit starts ringing.
- If the smoke is gone in less than 5 minutes then the alarm in that unit will stop ringing.
- If the alarm remains activate for more than 5 minutes, then the alarm system in both units become activate; and a message is sent to the fire station.

You must use the time-based transitions with label:

**tm( entered(state A), delayedTime)**, that triggers a transition after “delayedTime” that the system enters state A.

## Alarm System Component Diagram



## Alarm System State Chart

