(Mastering Embedded System Online Diploma)

First Term (Final project 1): Pressure Controller

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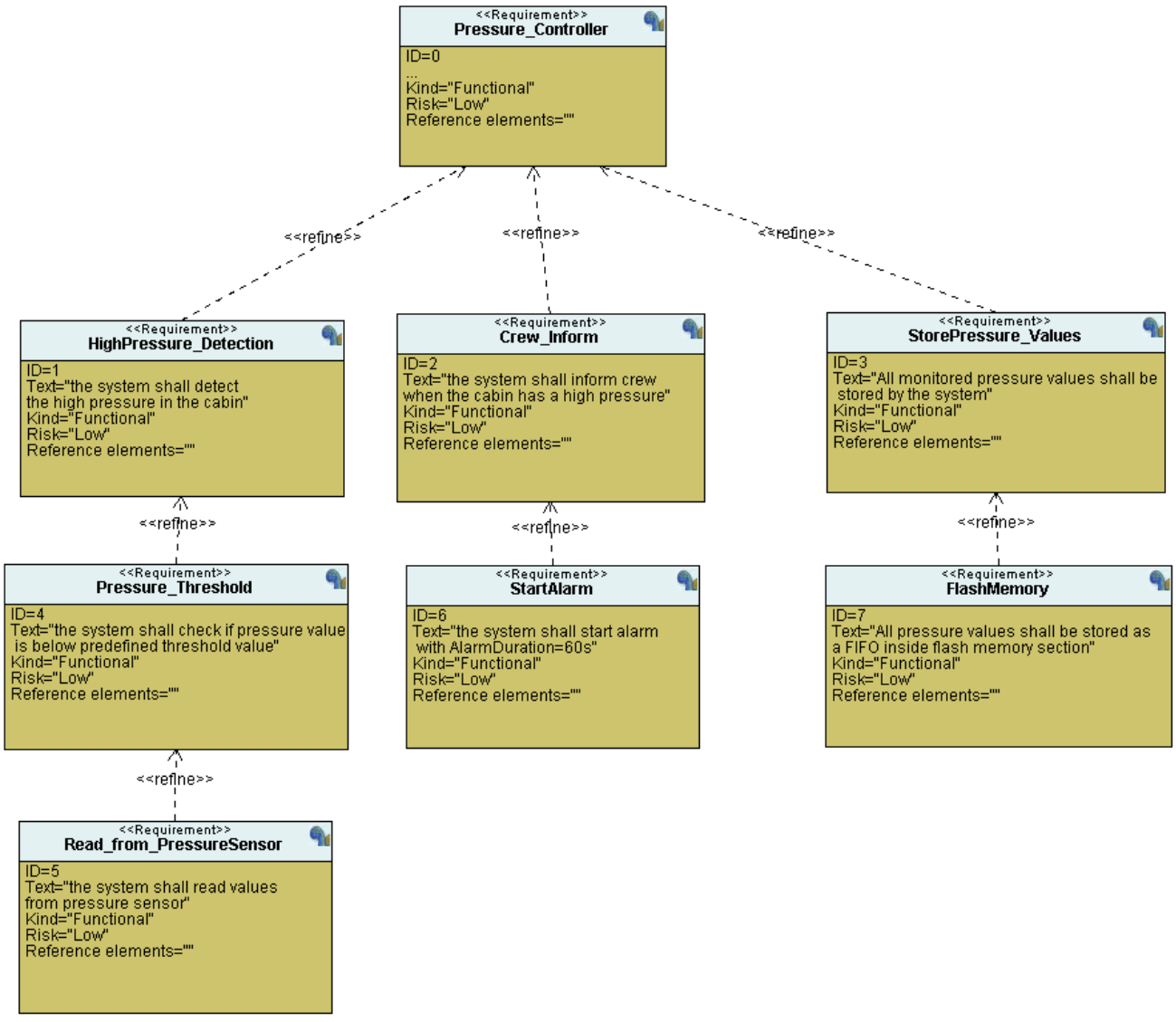
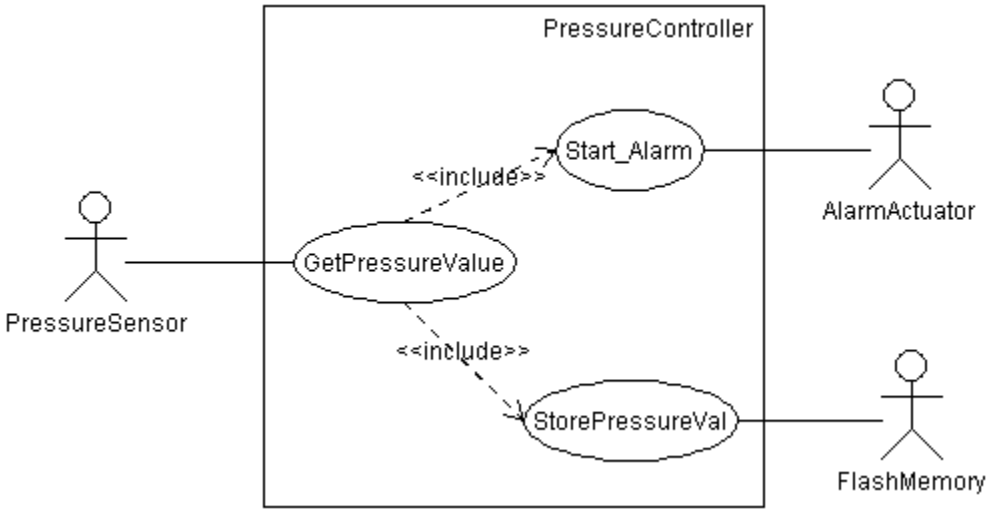
➢ Case study:

Design a pressure controller system to inform the crew of a cabin with an alarm when the pressure exceeds 20 bars in the cabin. Alarm should last for 60 seconds.

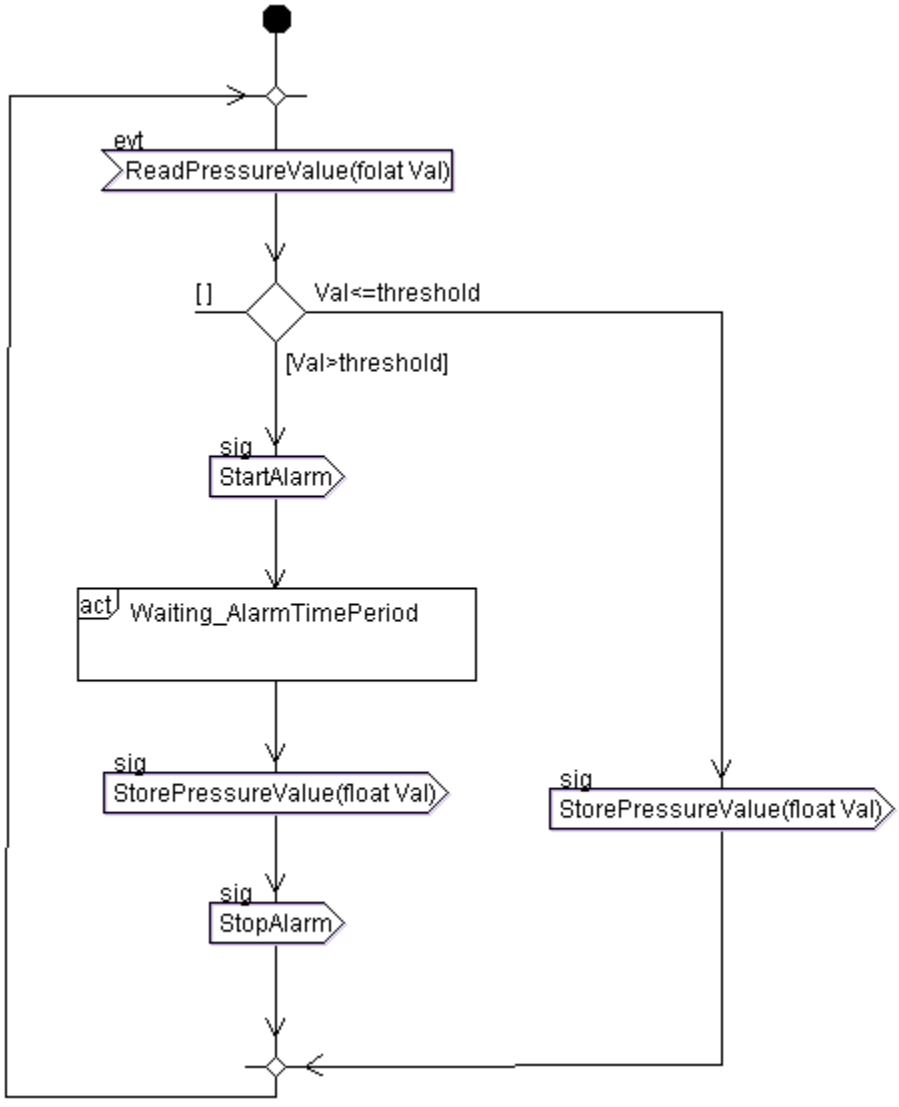
➢ Requirements:



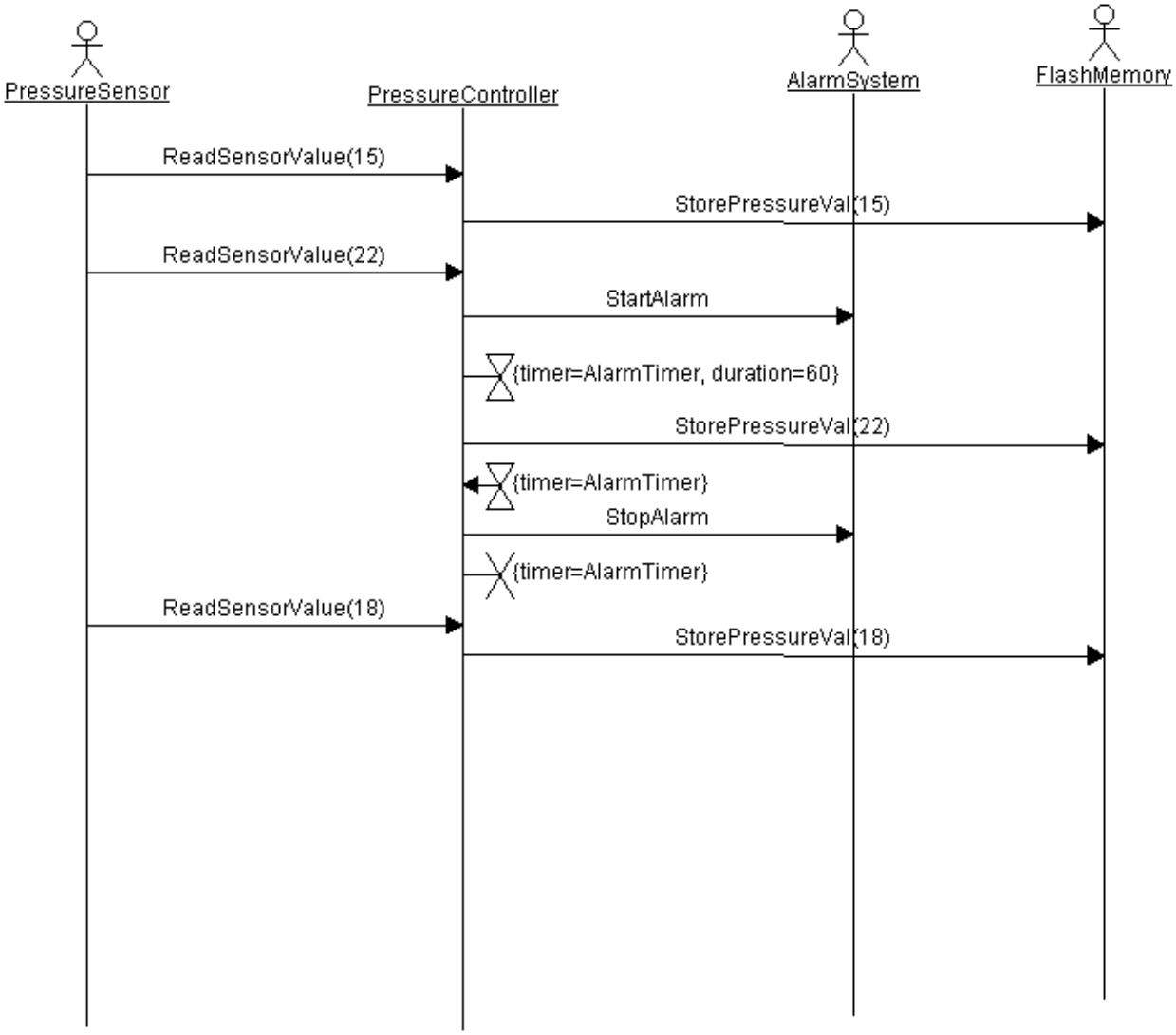
- **System Analysis:**
  - **Use case diagram**



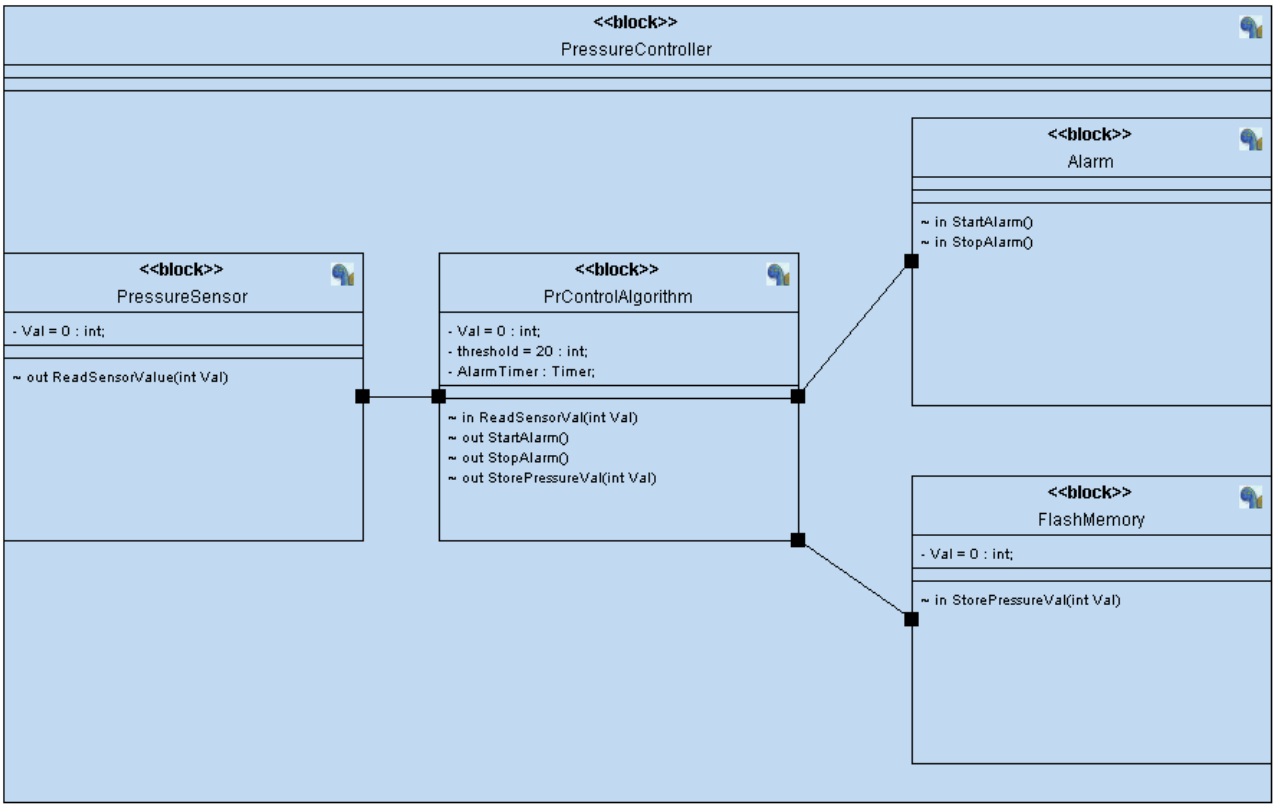
  - **Activity diagram:**



➢ Sequence Diagram:

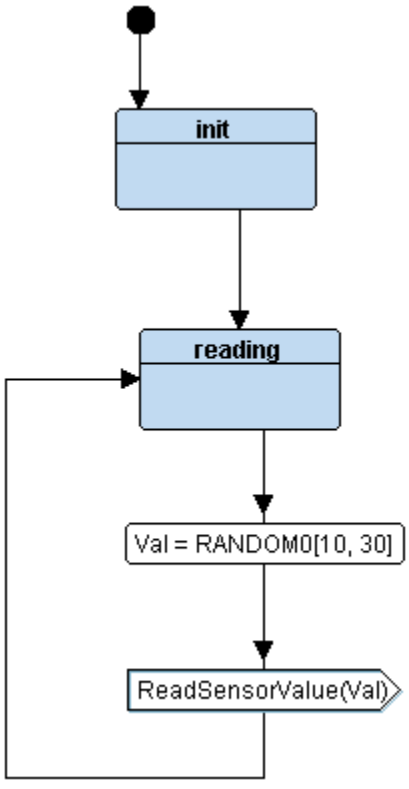


- **System design:**
  - Block diagram

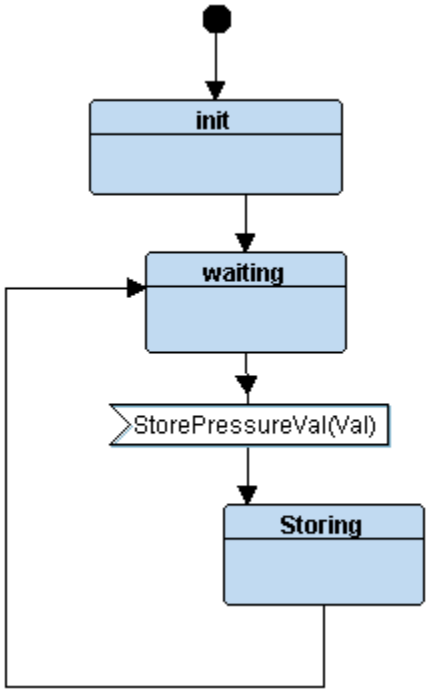


  - State diagrams

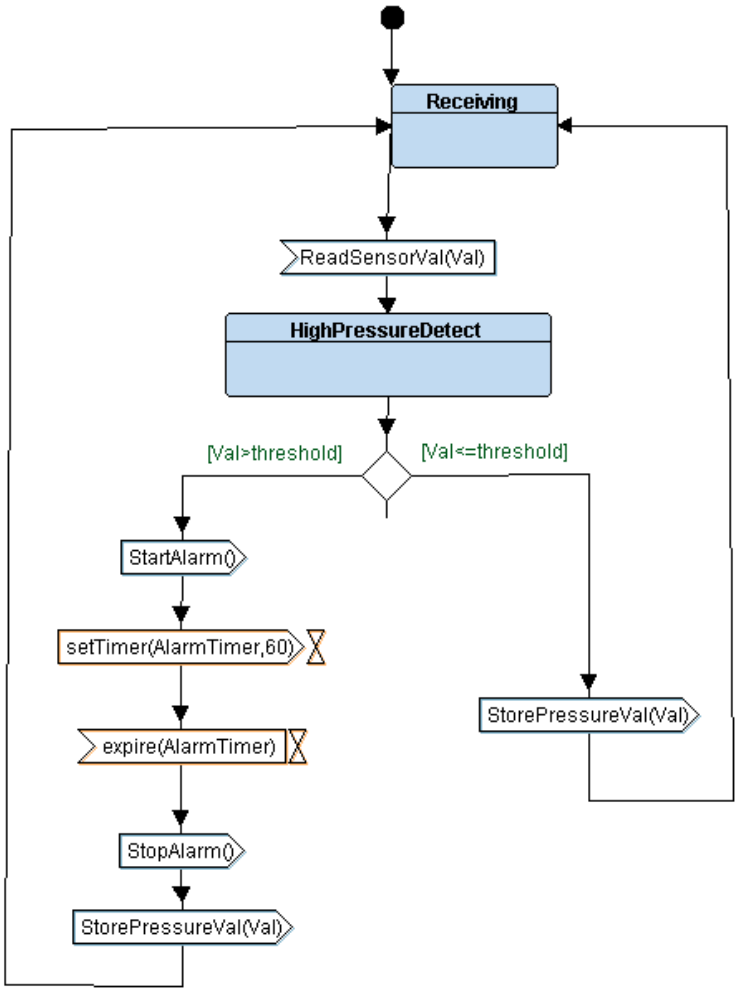
Pressure sensor



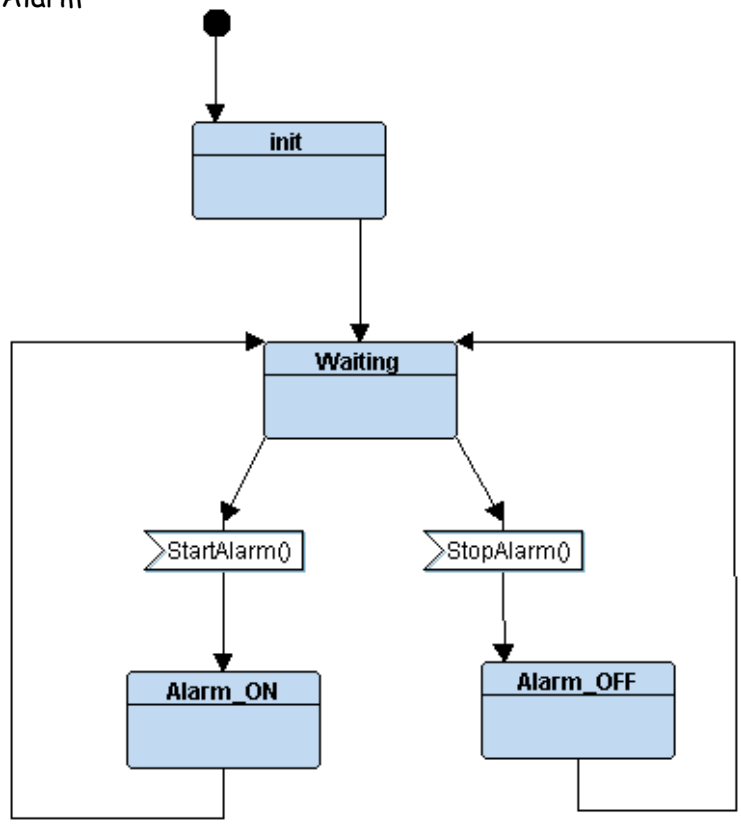
Flash memory



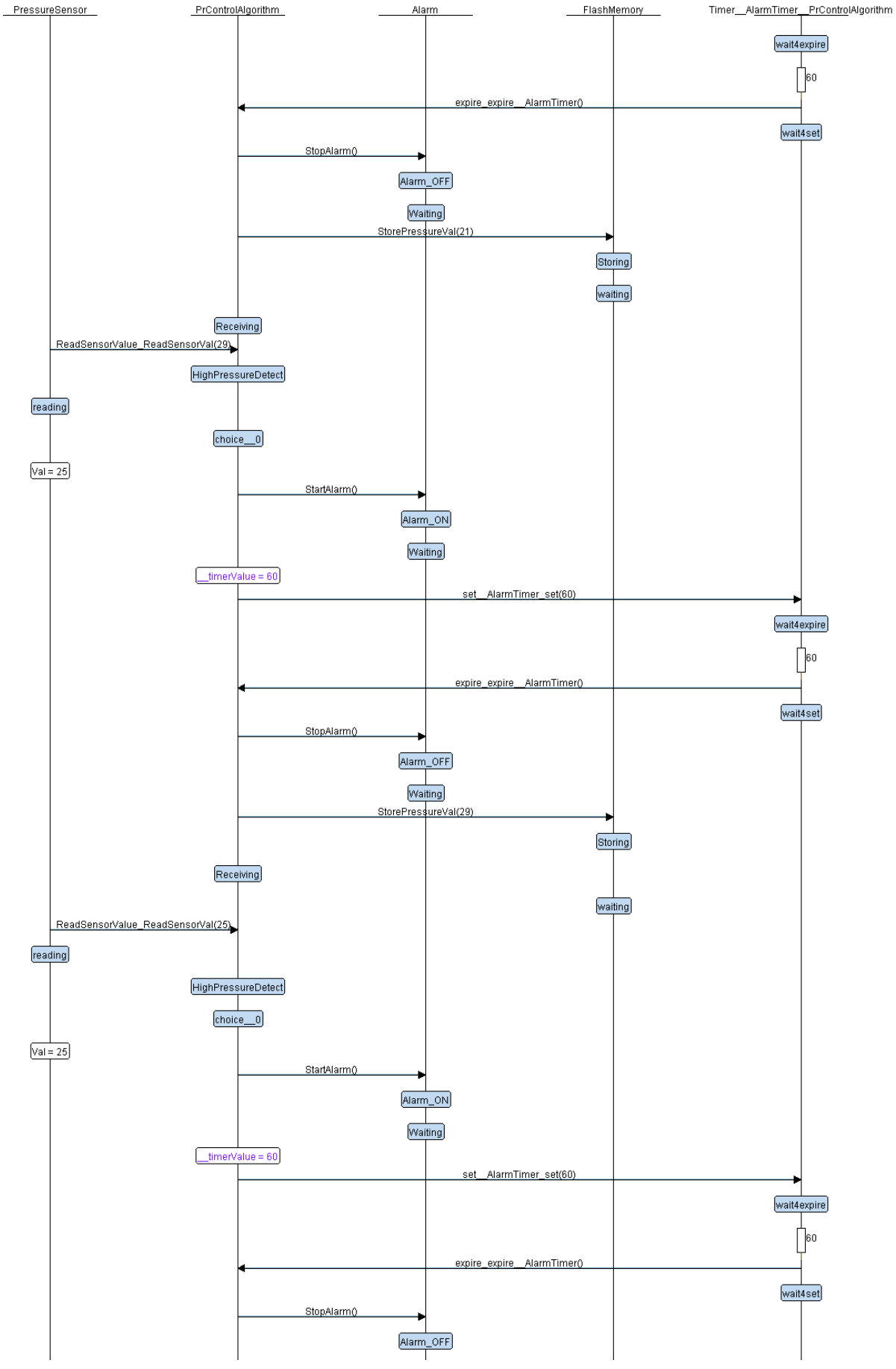
Pressure Controller Algorithm



Alarm

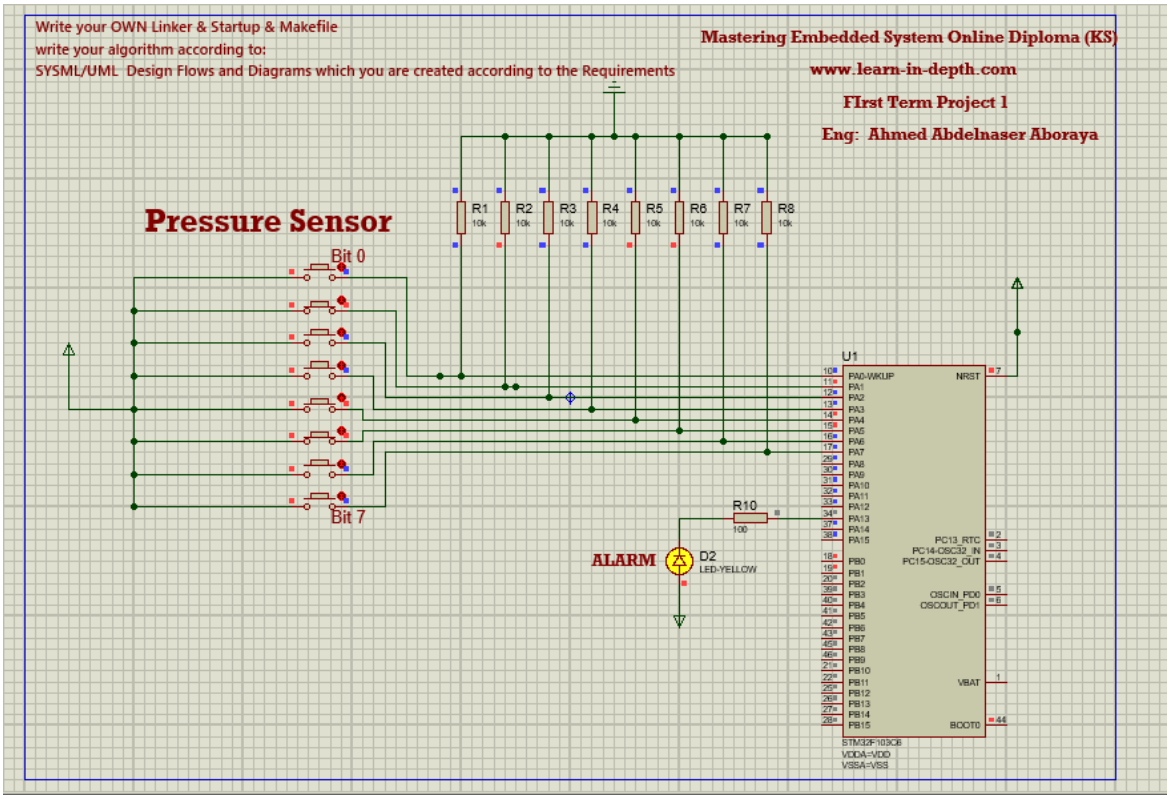
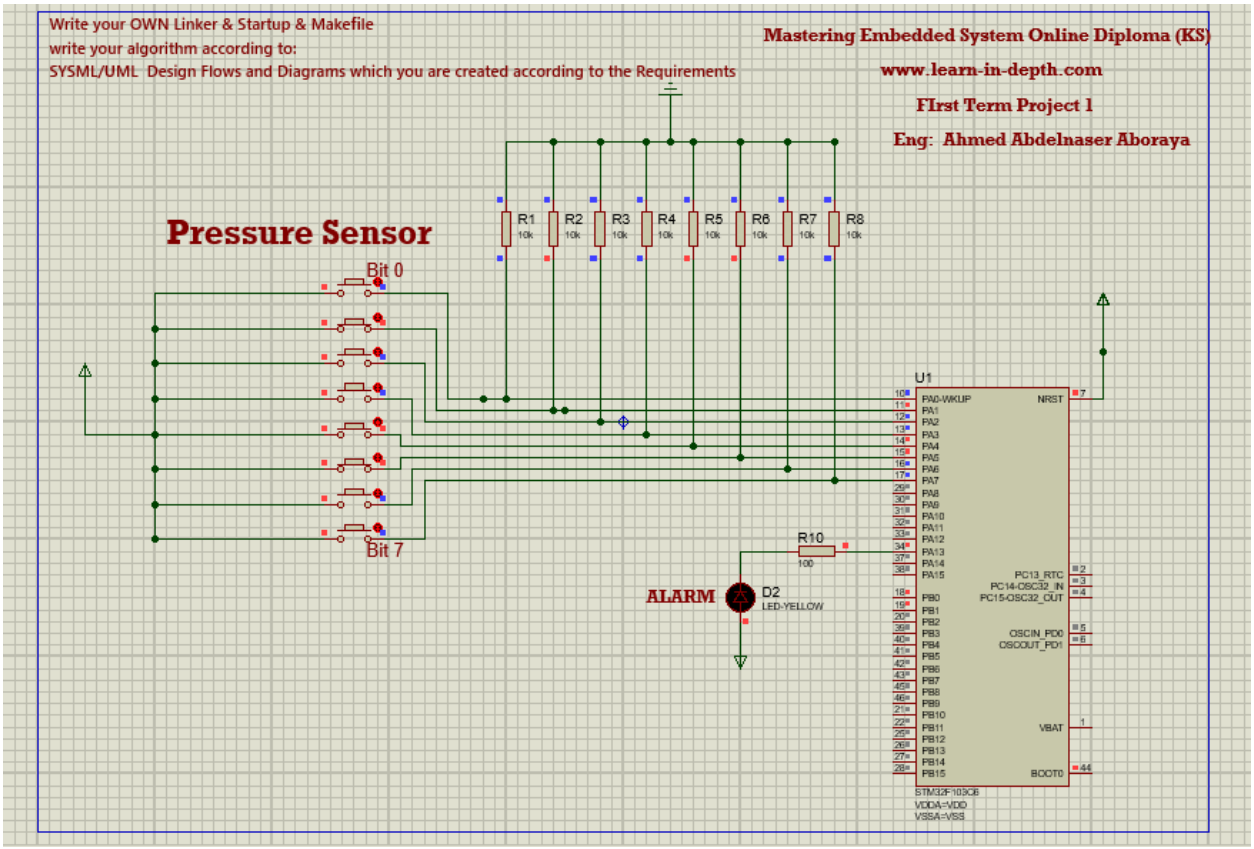


➢ Interactive simulation:



Simulation:

- Alarm ON



- Alarm OFF