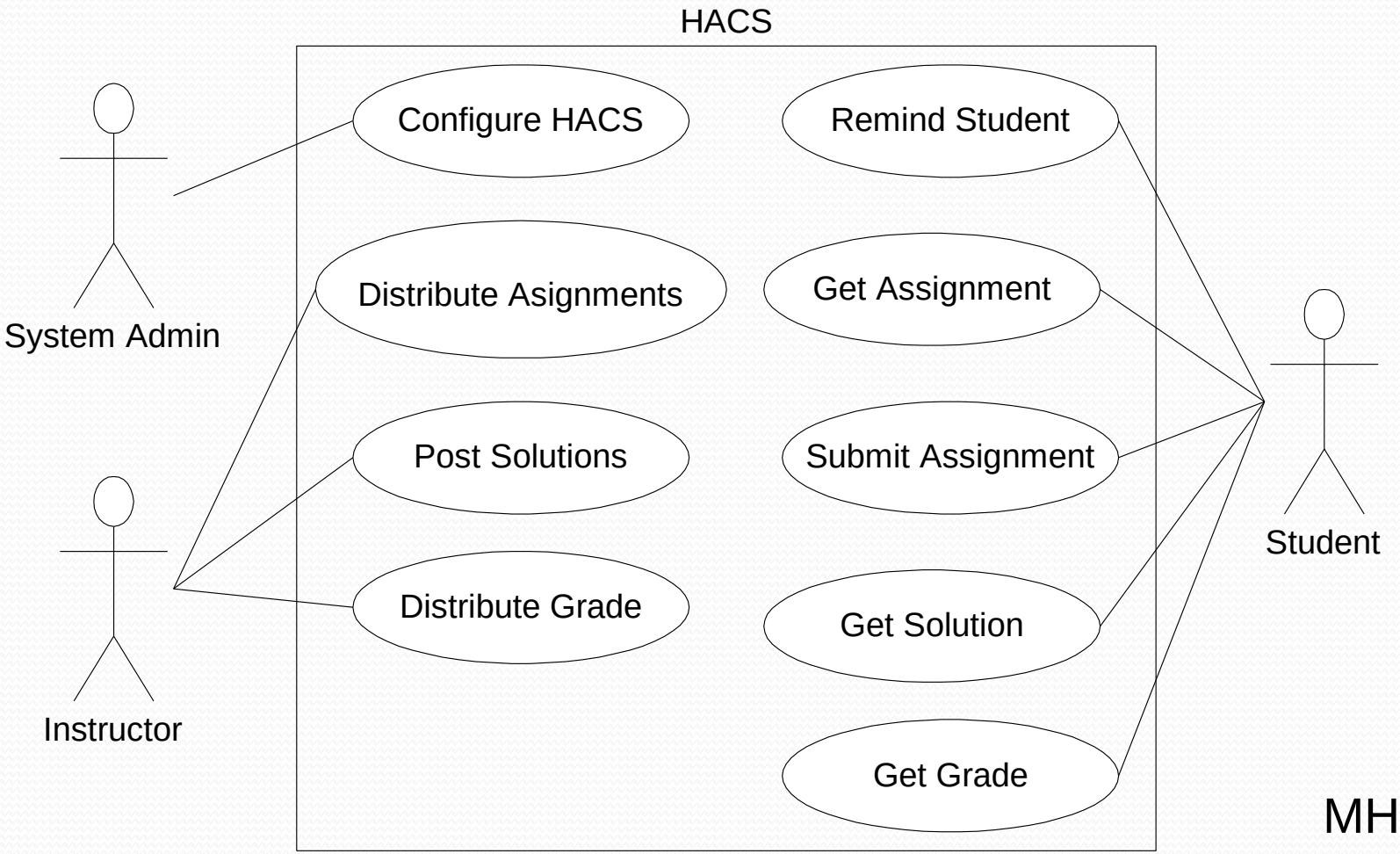
Use Cases

Case Study - Homework Assignment & Collection Sys

- Homework assignment and collection are an integral part of any educational system. Today, this task is performed manually. What we want the homework assignment distribution and collection system (HACS for short) to do is to automate this process.
- HACS will be used by the instructor to distribute the homework assignments, review the students' solutions, distribute suggested solution, and distribute student grades on each assignment.
- HACS shall also help the students by automatically distributing the assignments to the students, provide a facility where the students can submit their solutions, remind the students when an assignment is almost due, remind the students when an assignment is overdue.

HACS Use-Case Diagram



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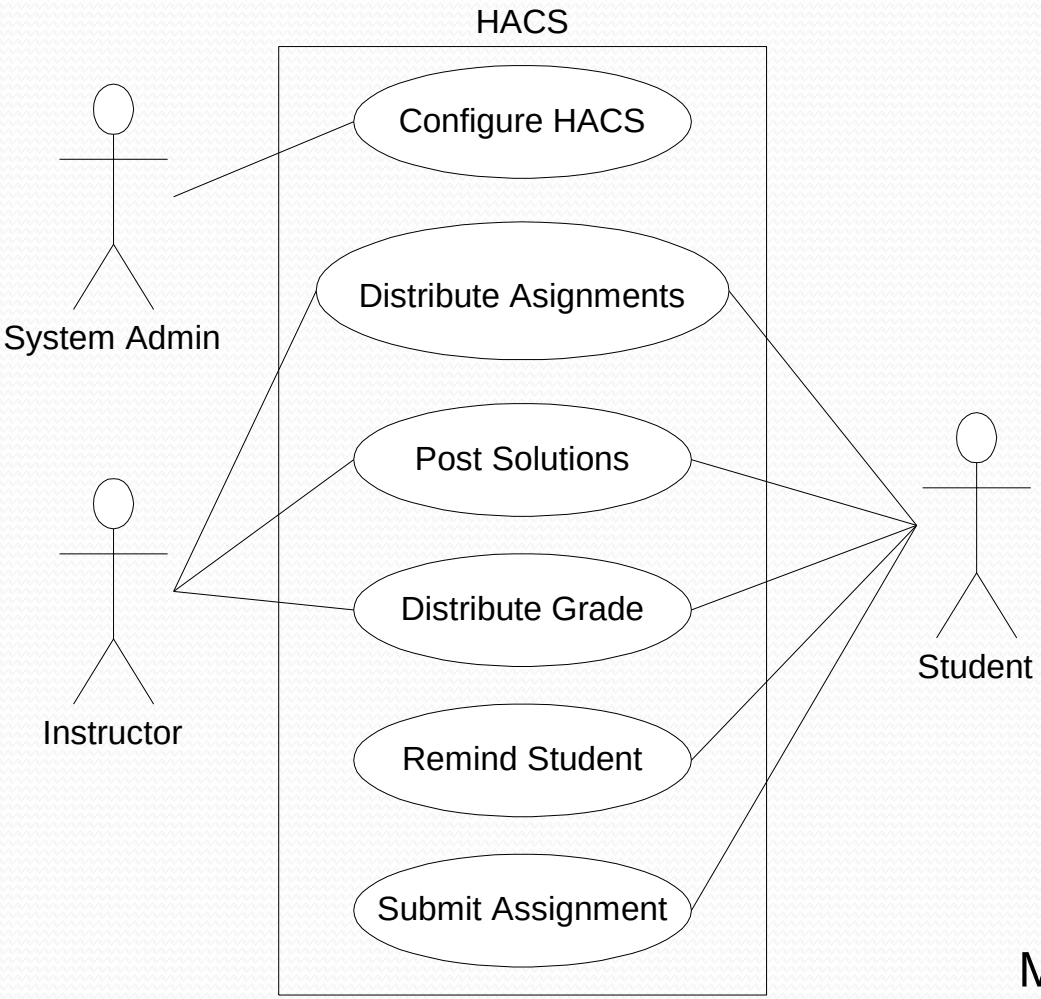
HACS Use-Cases

Use case: **Distribute Assignments**
Actors: Instructor (initiator)
Type: Primary and essential
Description: The Instructor completes an assignment and submits it to the system. The instructor will also submit the due date and the class the assignment is assigned for.

Cross Ref.: Requirements XX, YY, and ZZ
Use-Cases: *Configure HACS* must be done before any user (Instructor or Student) can use HACS

Alternate HACS



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Alternate HACS Use-Cases

Use case: **Distribute Assignments**

Actors: Instructor (initiator), Student

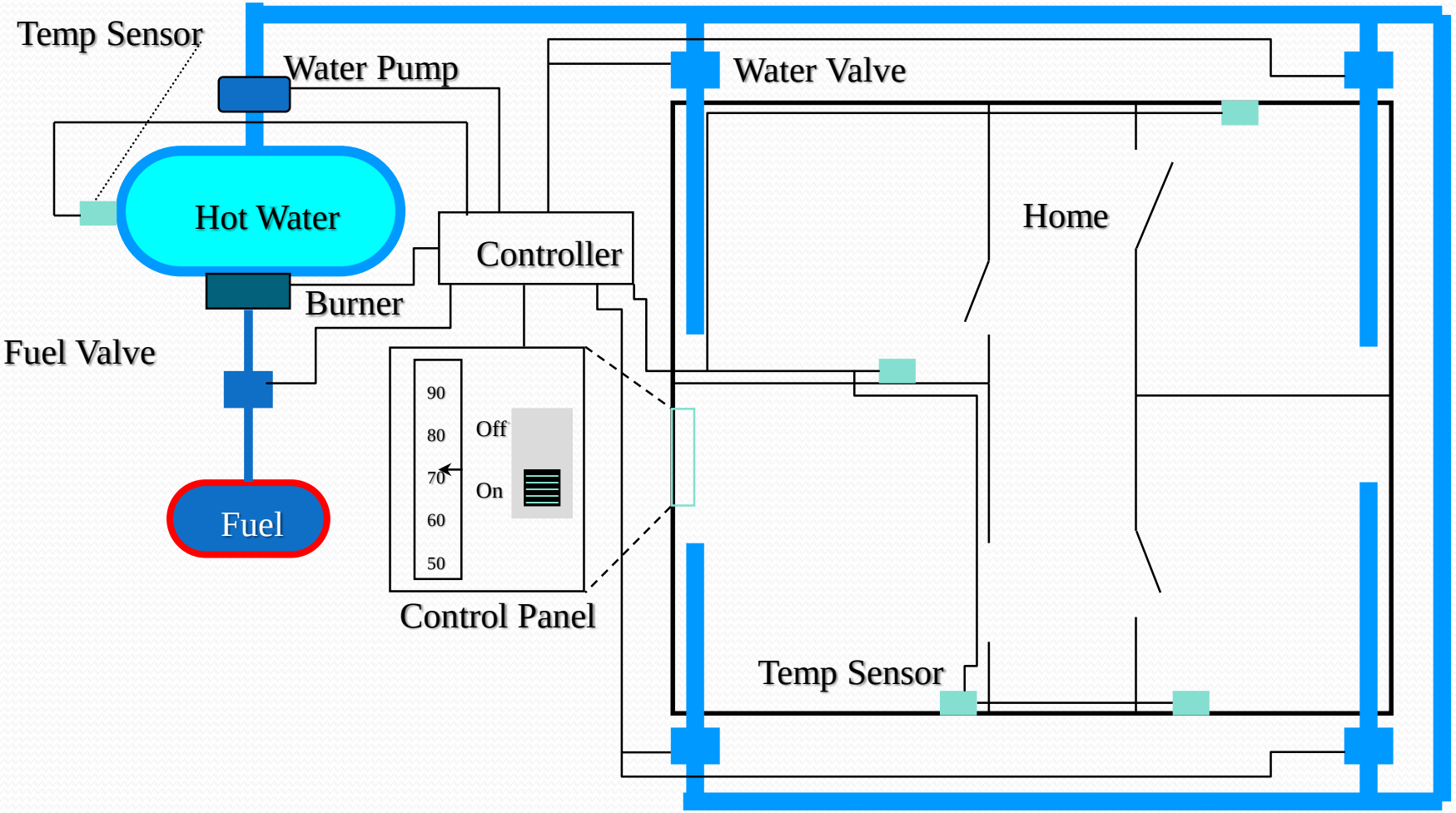
Type: Primary and essential

Description: The Instructor completes an assignment and submits it to the system. The instructor will also submit the delivery date, due date, and the class the assignment is assigned for. The system will at the due date mail the assignment to the student.

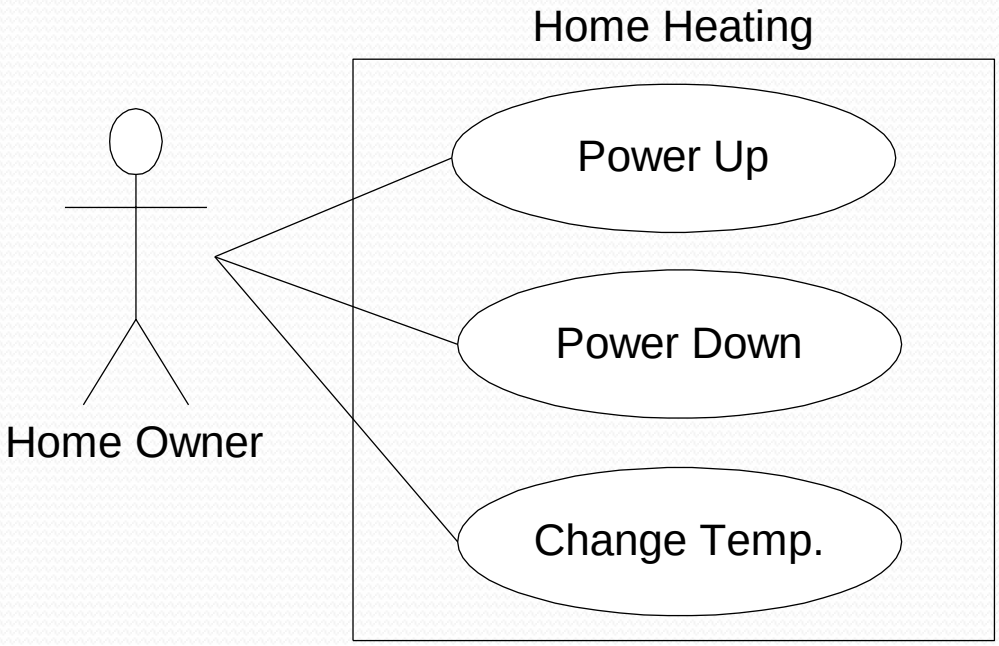
Cross Ref.: Requirements XX, YY, and ZZ

Use-Cases: *Configure HACS* must be done before any user (Instructor or Student) can use HACS

The Home Heating System



Home Heating Use-Case Diagram



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Home Heating Use-Cases

Use case: **Power Up**

Actors: Home Owner (initiator)

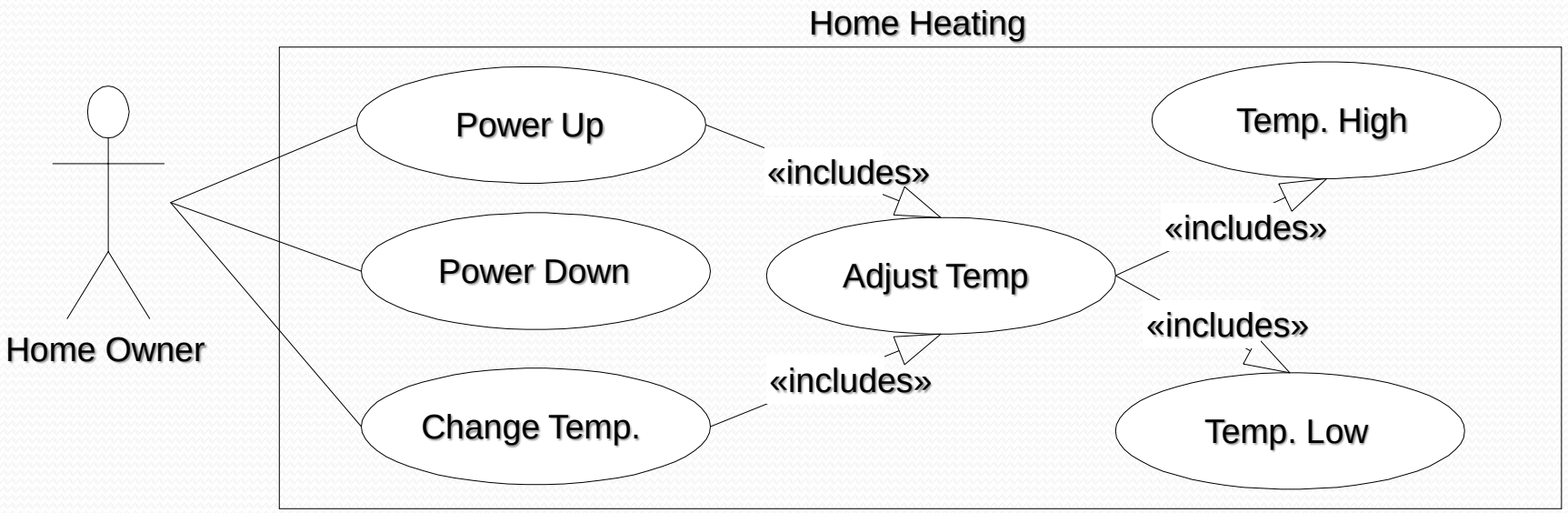
Type: Primary and essential

Description: The Home Owner turns the power on. Each room is temperature checked. If a room is below the the desired temperature the valve for the room is opened, the water pump started. If the water temp falls below threshold, the fuel valve is opened, and the burner ignited. If the temperature in all rooms is above the desired temperature, no actions are taken.

Cross Ref.: Requirements XX, YY, and ZZ

Use-Cases: None

Modified Home Heating



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Modified:

* Home Heating Use-Cases

Use case:	**Power Up**
Actors:	Home Owner (initiator)
Type:	Primary and essential
Description:	The Home Owner turns the power on. **Perform Adjust Temp**. If the temperature in all rooms is above the desired temperature, no actions are taken.
Cross Ref.:	Requirements XX, YY, and ZZ
Use-Cases:	Perform Adjust Temp

Modified:

* Home Heating Use-Cases

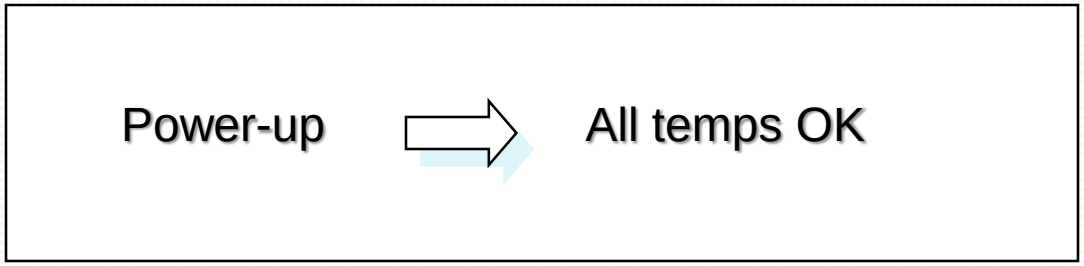
Use case:	**Adjust Temp**
Actors:	System (initiator)
Type:	Secondary and essential
Description:	Check the temperature in each room. For each room: Below target: **Perform Temp Low** Above target: **Perform Temp High**
Cross Ref.:	Requirements XX, YY, and ZZ
Use-Cases:	Temp Low, Temp High

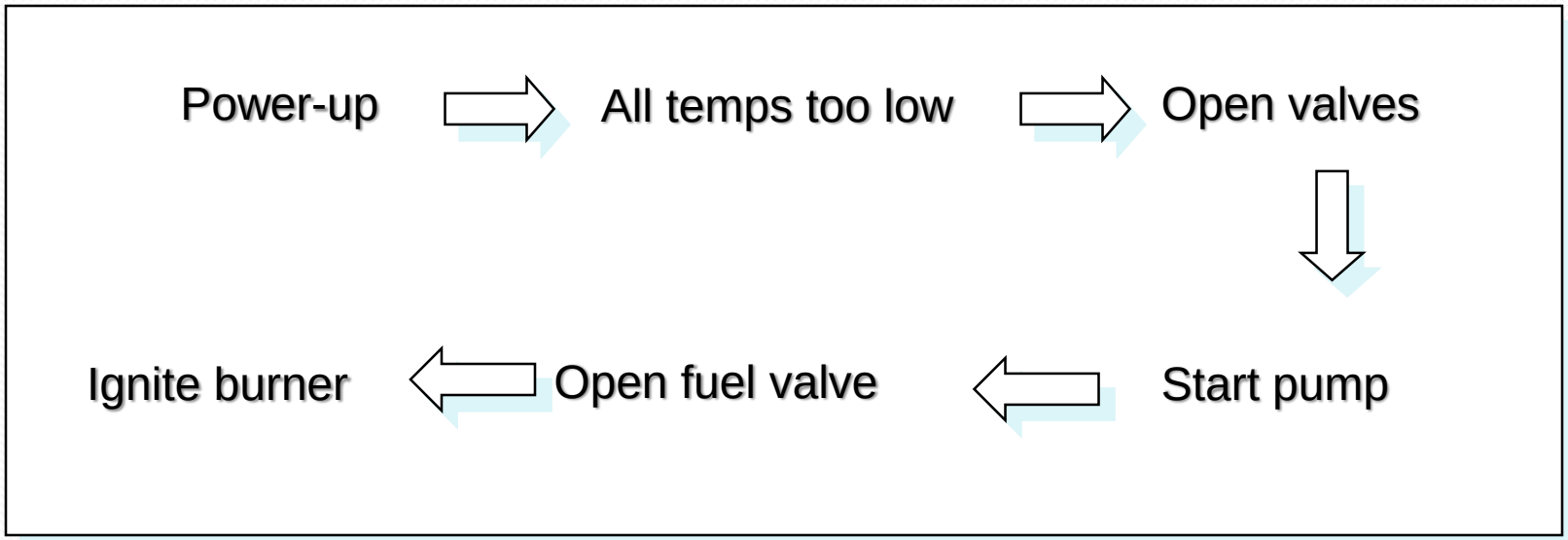
Modified:

* # Home Heating Use-Cases

Use case:	**Temp Low**
Actors:	System (initiator)
Type:	Secondary and essential
Description:	Open room valve, start pump if not started. If water temp falls below threshold, open fuel value and ignite burner.
Cross Ref.:	Requirements XX, YY, and ZZ
Use-Cases:	None

Scenarios -- One Use Case





Scenarios -- One Use Case