

TEAM 2

Object Oriented Design

강병완 202211248

강현준 202211251

박 완 202211301

정민수 202211365

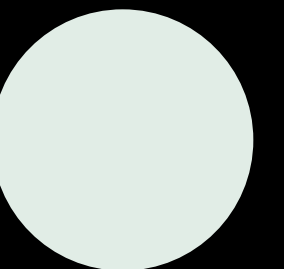
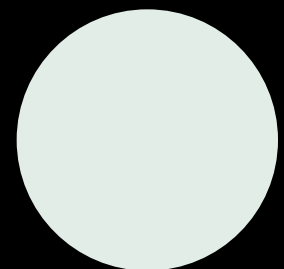


Table of Content

- Changes
- Sequence Diagram
- Class Diagram

Use Case #5

Name	5. 청소 시 전진
Actor	Motor(Supporting), Cleaner(Supporting)
Pre-Requisites	RVC가 켜진 상태이다.
Typical Courses of Events	(C) : Cleaner, (M) : Motor, (R) : RVCSystem 1. (R)이 (C)에게 켜져있냐고 물어본다. 2. (C)가 켜져있는 걸 (R)이 인식하면, (R)은 (M)을 전진하도록 한다.
Alternative Courses of Events	N/A
Exceptional Courses of Events	N/A

Use Case #6

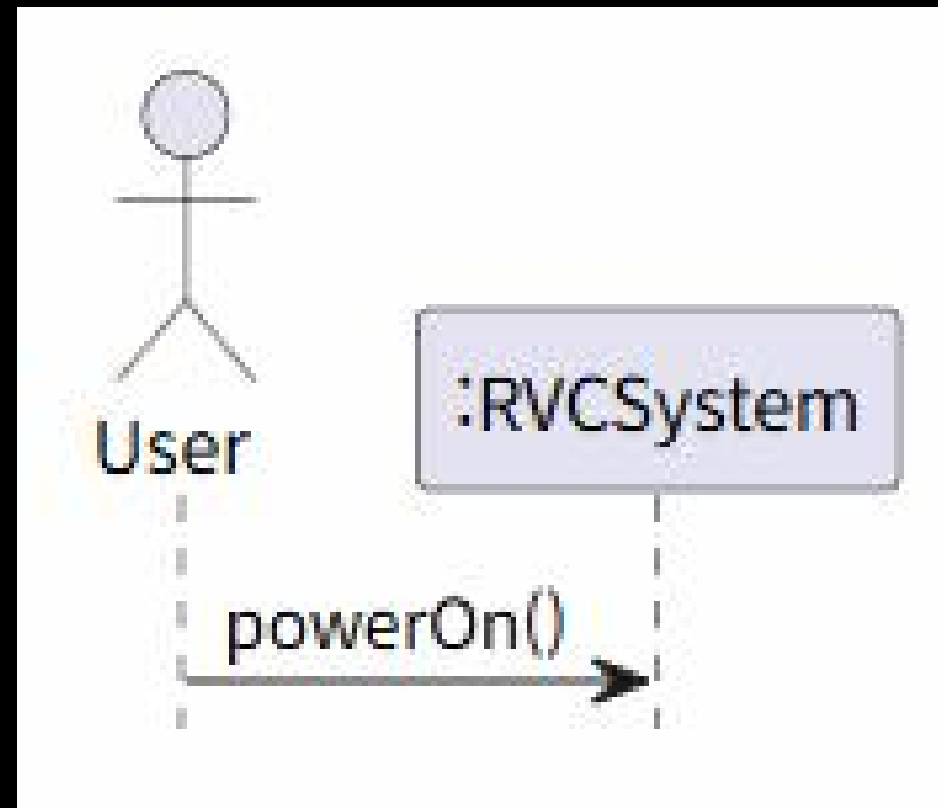
Name	6. 청소 파워 증폭
Actor	DustSensor(Supporting), Cleaner(Supporting)
Pre-Requisites	RVC가 청소 중이고, Cleaner가 켜져있다.
Typical Courses of Events	(R): RVCSysyem, (D): DustSensor, (C):Cleaner 1. (R)이 (D)에게 먼지 감지를 요청한다. 2. 먼지가 감지되었다면 (R)이 (C)의 파워를 증폭모드로 설정한다.
Alternative Courses of Events	Line 2: 먼지가 감지되지 않았다면 (R)이 (C)의 파워를 기본 모드로 설정한다.
Exceptional Courses of Events	N/A

Use Case #7

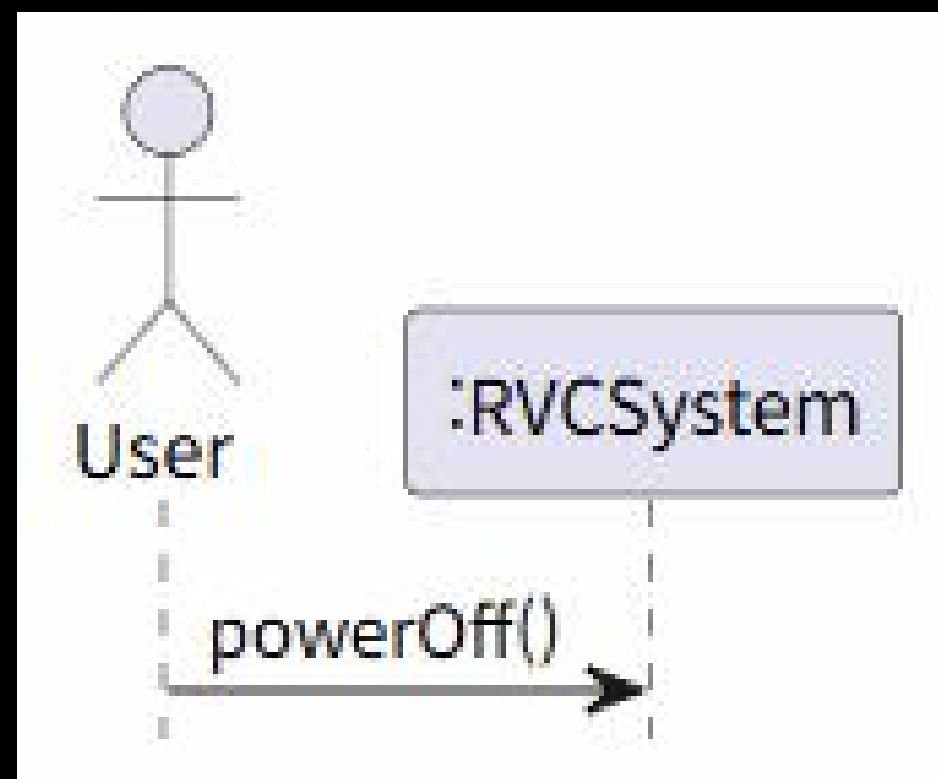
Update

Name	7. 장애물 감지 후 회피
Actor	ObstacleSensor(Supporting), Cleaner(Supporting), Motor(Motor)
Pre-Requisites	RVC가 청소 중이다.
Typical Courses of Events	(C) : Cleaner (M): Motor, (O): ObstacleSensor, (R) : RVCSystem 1. (R)이 (O)에게 장애물 감지를 요청한다. 2. 정면에서 장애물을 감지했다면, (R)이 (C)를 끈다. 3. (R)이 (M)의 이동을 중단한다. 4. 좌측에 장애물이 없다면, (R)은 (M)이 좌측으로 회전하도록 한다. 5. (R)이 (C)를 켜다.
Alternative Courses of Events	Line 4 : 좌측에 장애물이 있고 우측에 장애물이 없다면 (R)은 (M)이 우측으로 회전하도록 한다. Line 4: 좌측 그리고 우측에 장애물이 있다면, (R)은 (M)이 후진 후에 좌측 또는 우측으로 회전하도록 한다.
Exceptional Courses of Events	Line 4~5 : 사방에 장애물이 있다면, 청소를 종료한다.

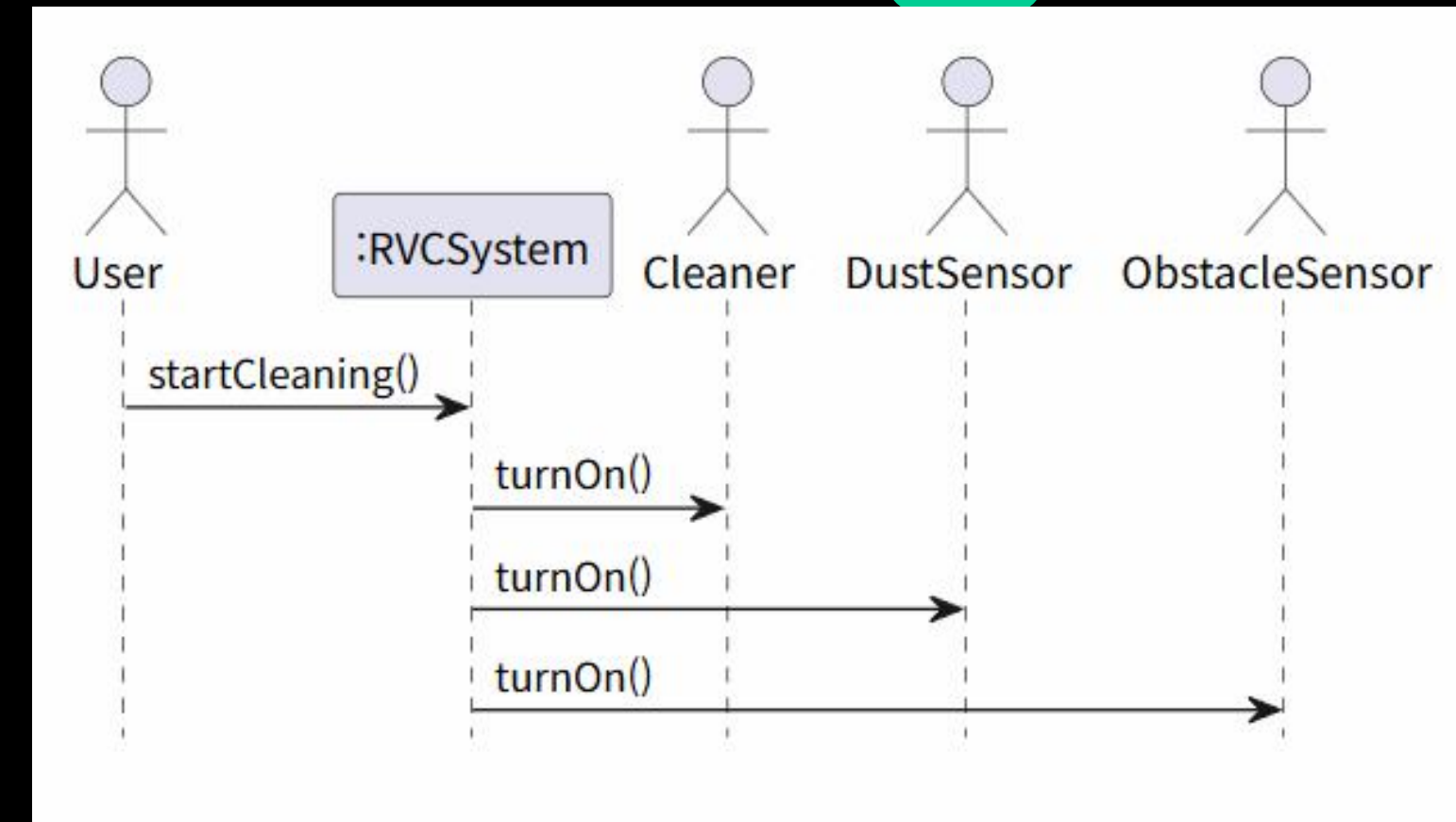
System Sequence Diagram Update



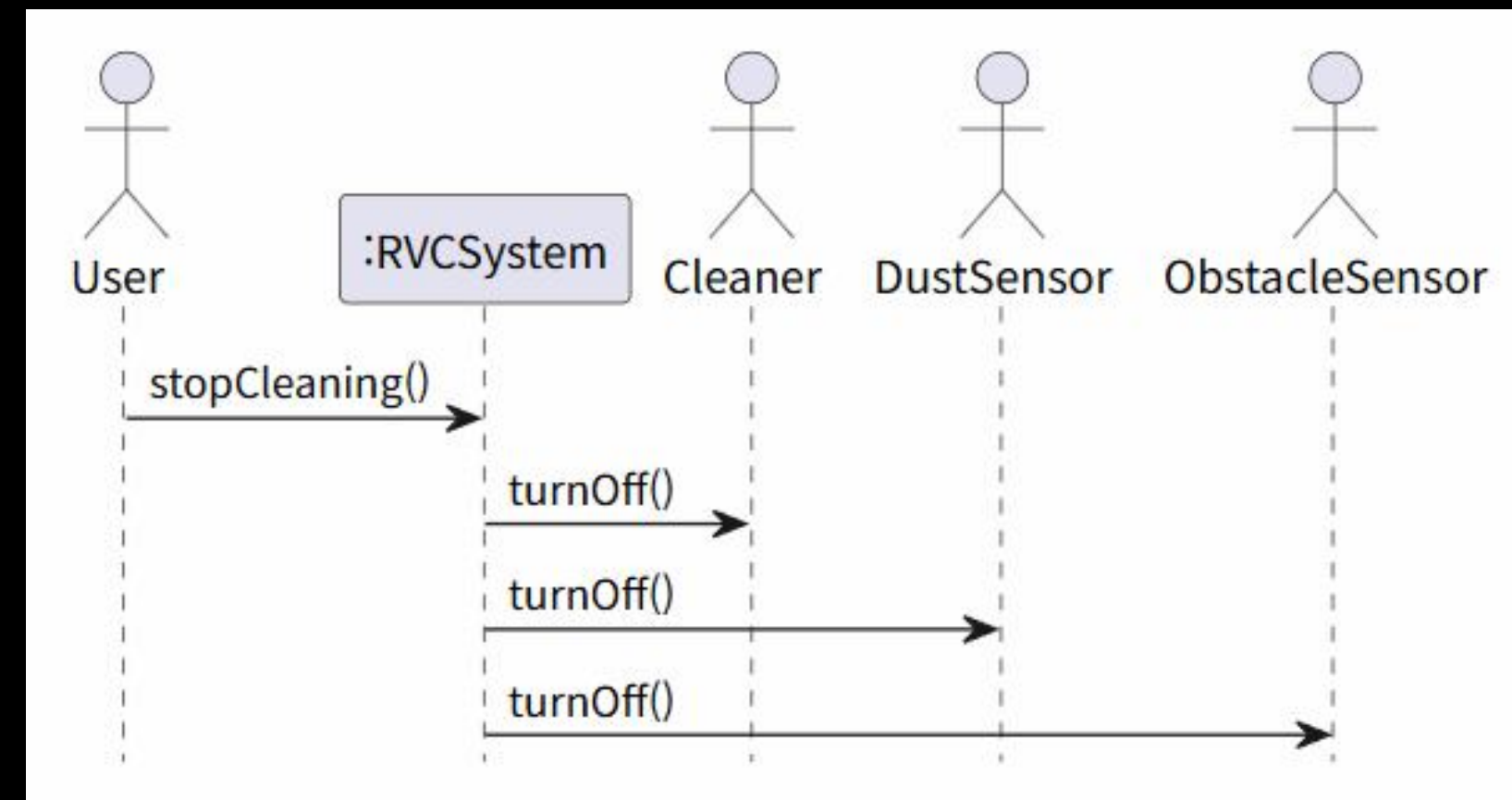
UC #1



UC #2



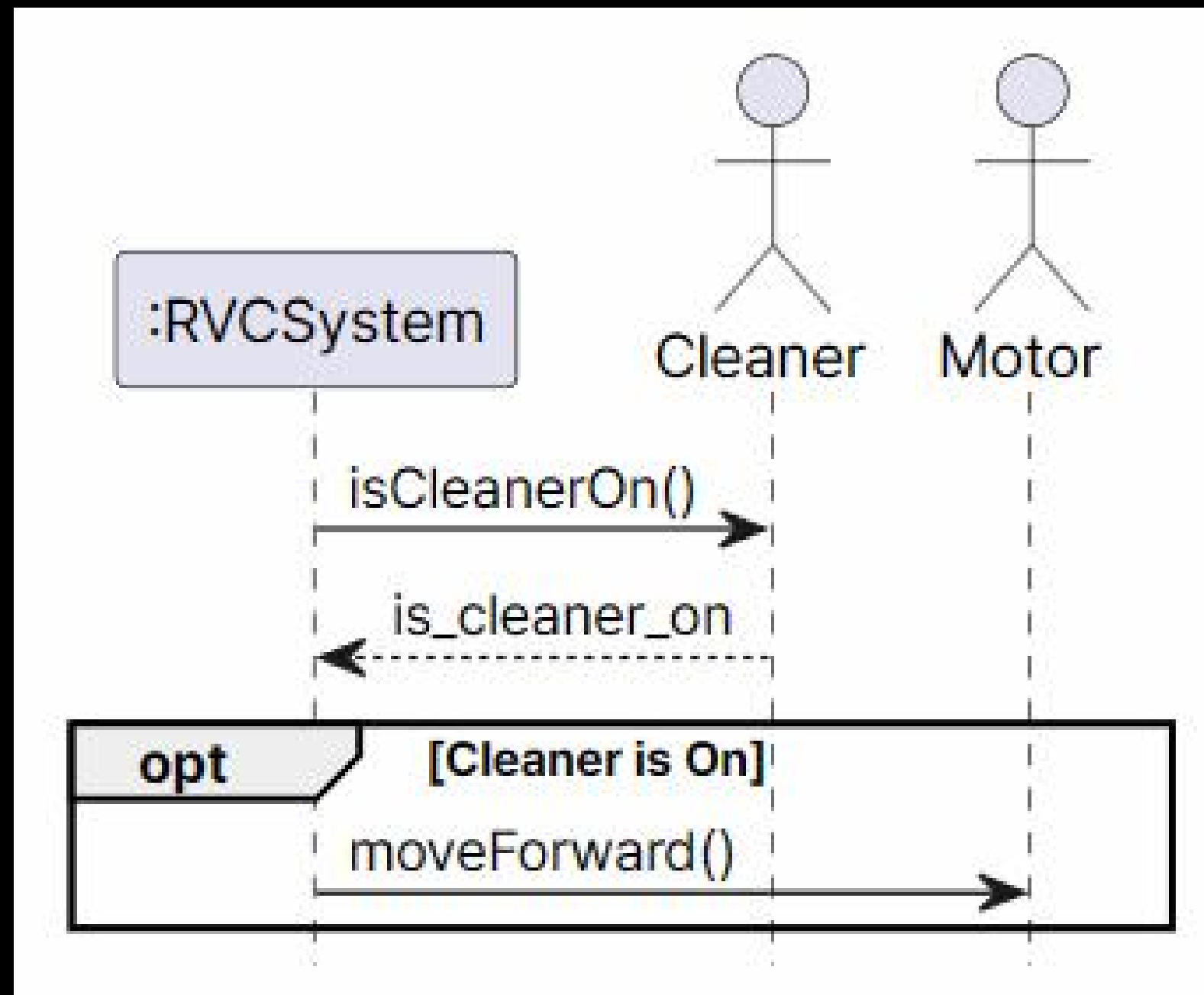
UC #3



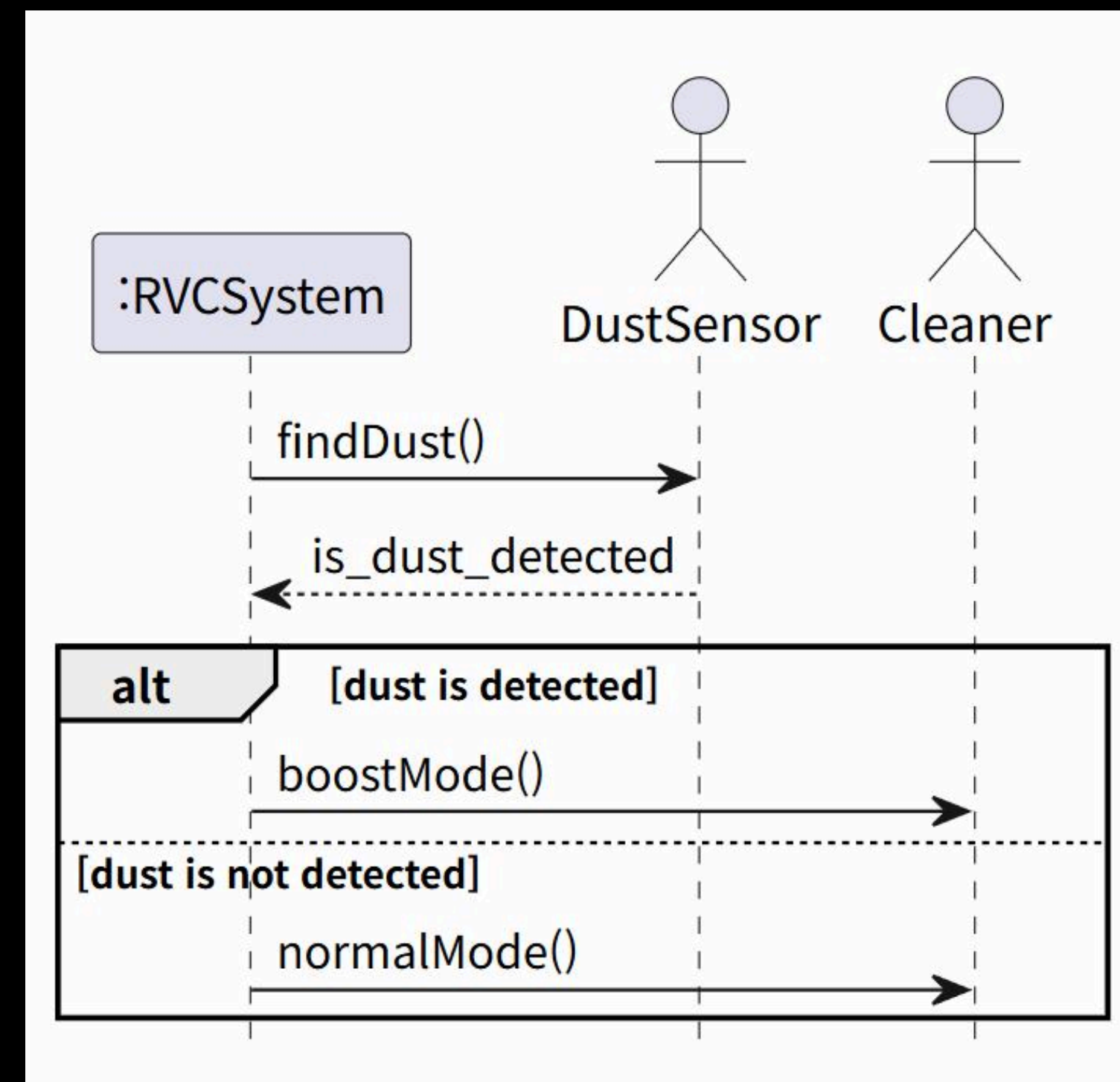
UC #4

System Sequence Diagram

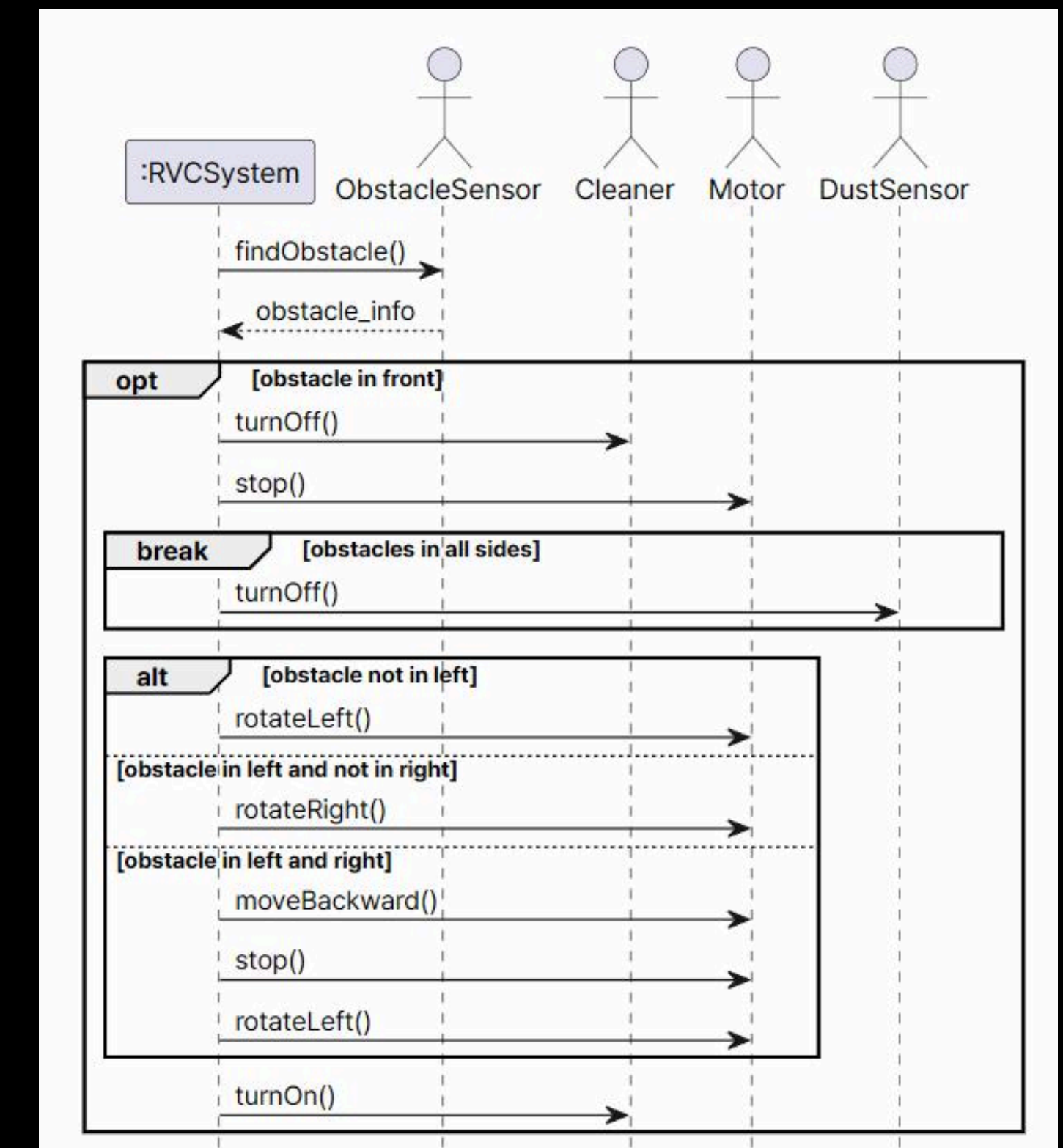
Update



UC #5



UC #6



UC #7

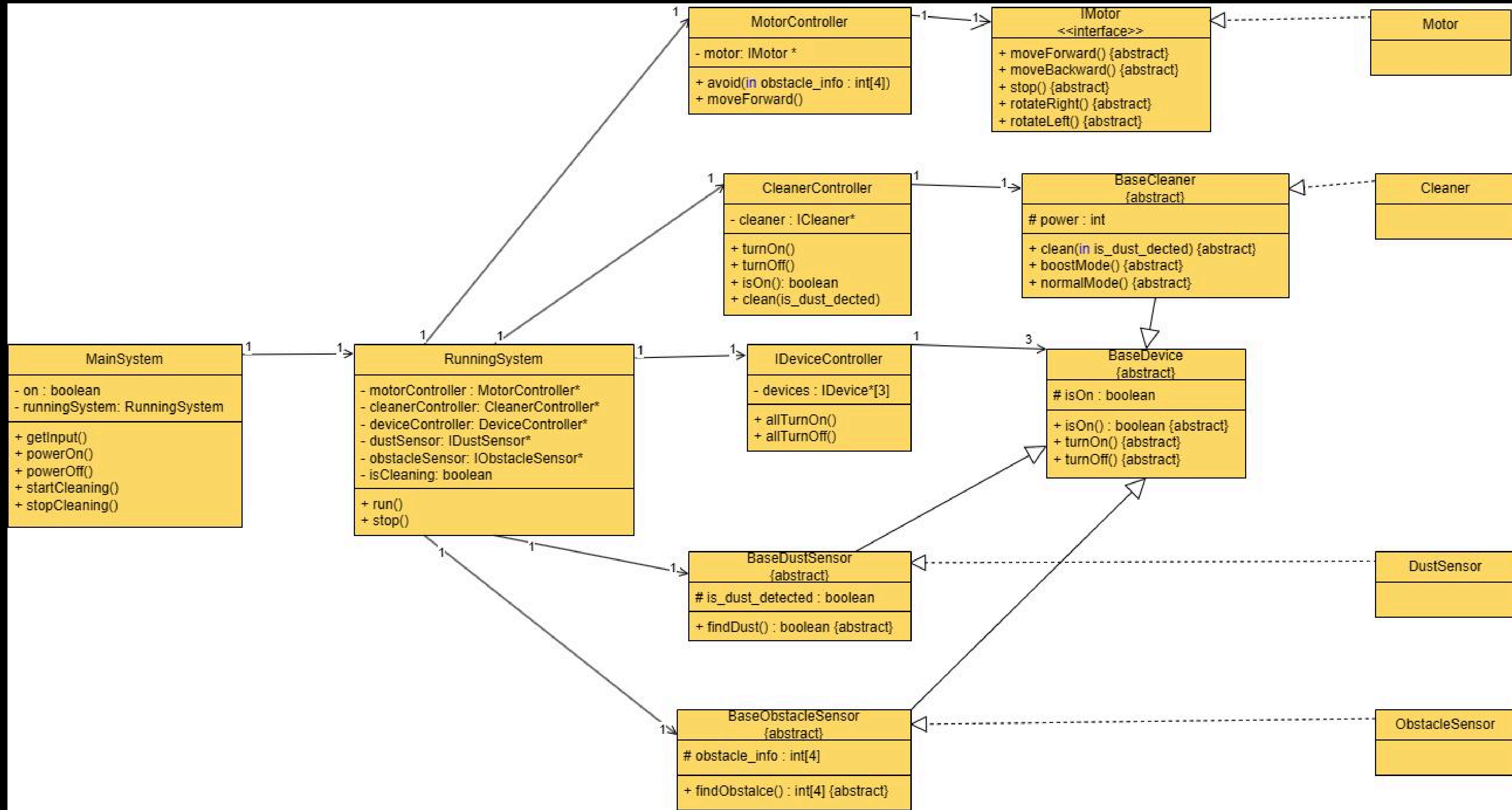
System Operations

Update

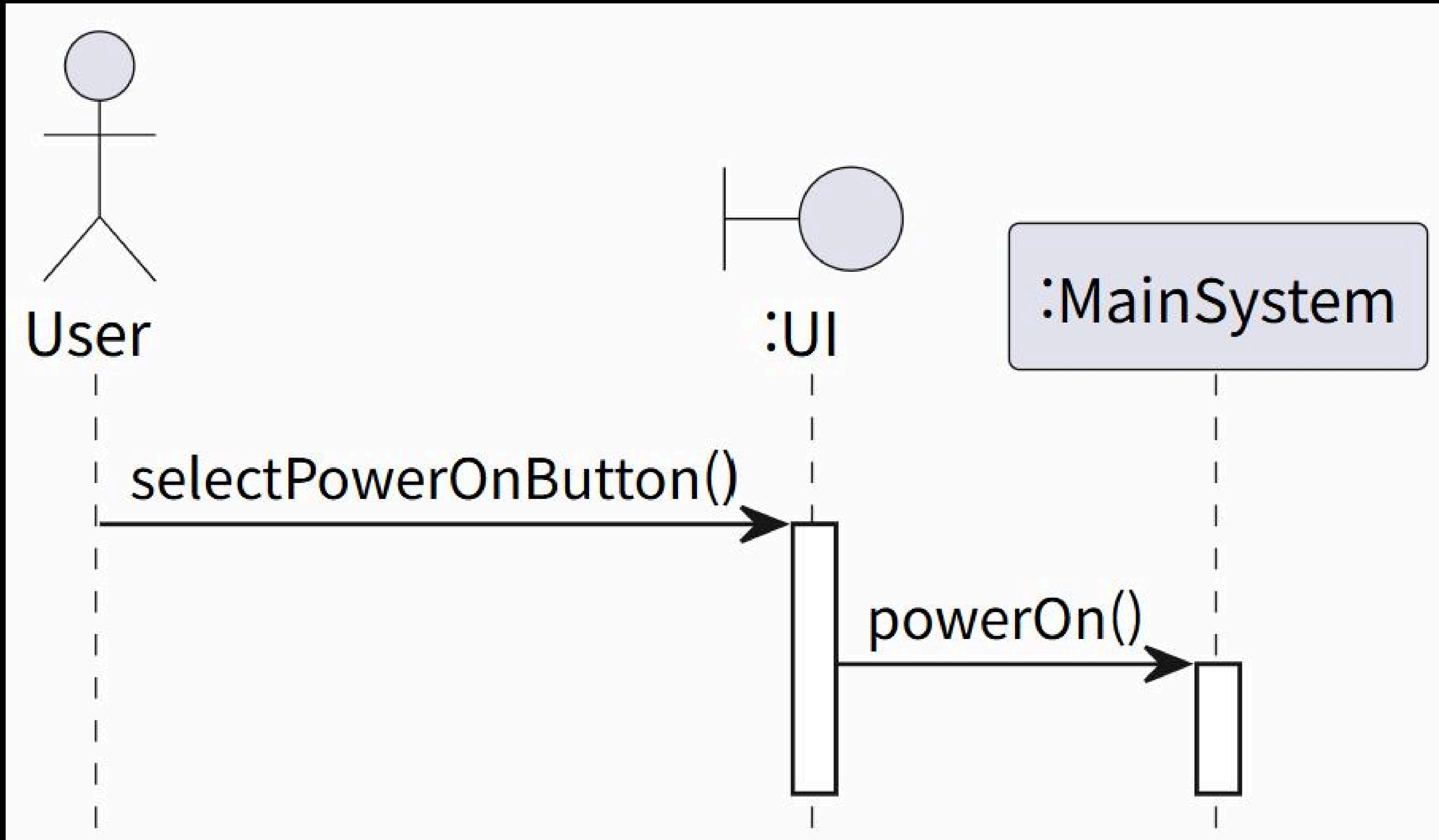
```
{interface}  
RVCSystem
```

```
+ powerOn()  
+ powerOff()  
+ turnOn()  
+ turnOff()  
+ startCleaning()  
+ stopCleaning()  
+ isCleanerOn()  
+ findDust()  
+ boostMode()  
+ normalMode()  
+ findObstacle()  
+ moveForward()  
+ moveBackward()  
+ rotateLeft()  
+ rotateRight()  
+ stop()
```

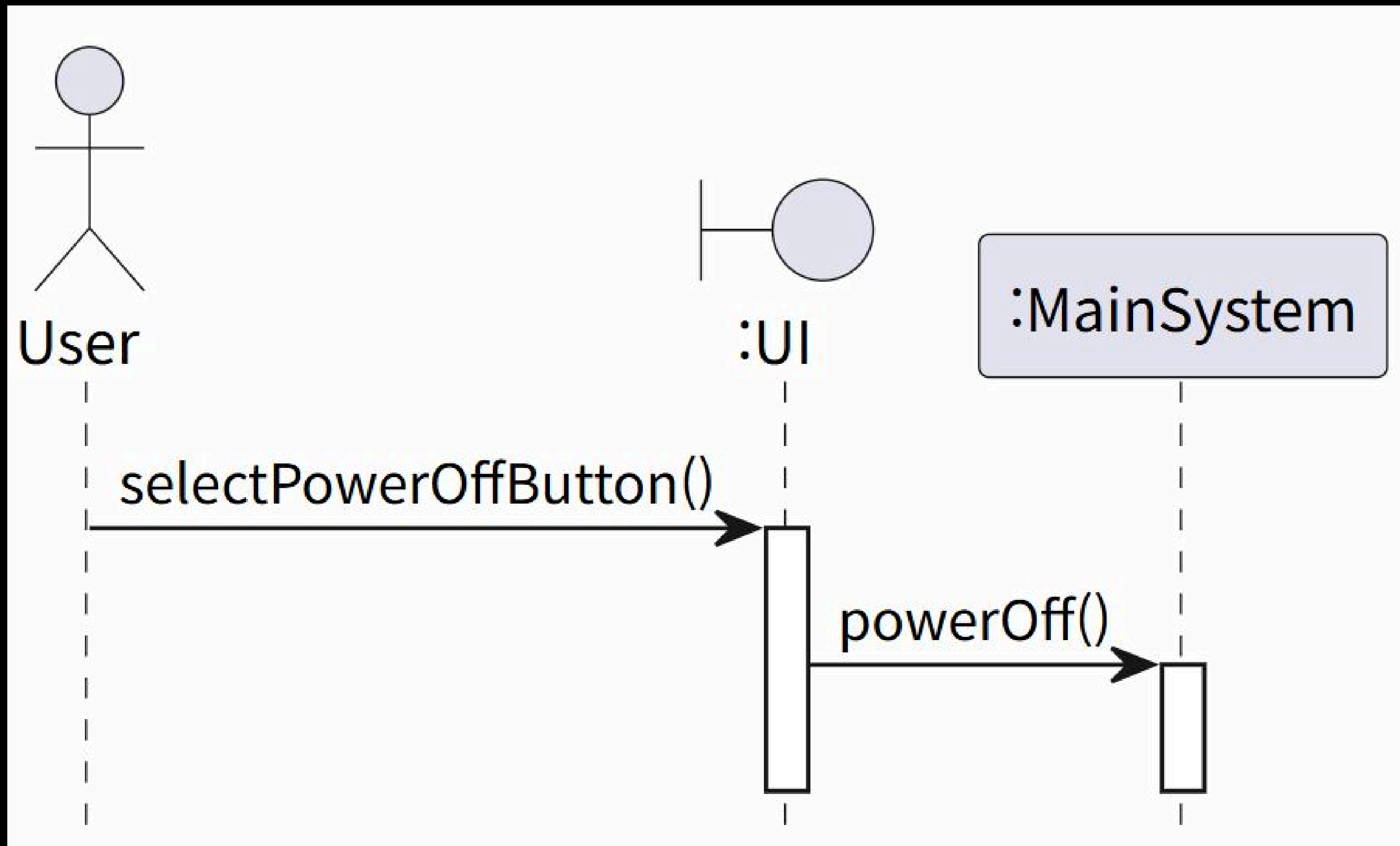
Class Diagram



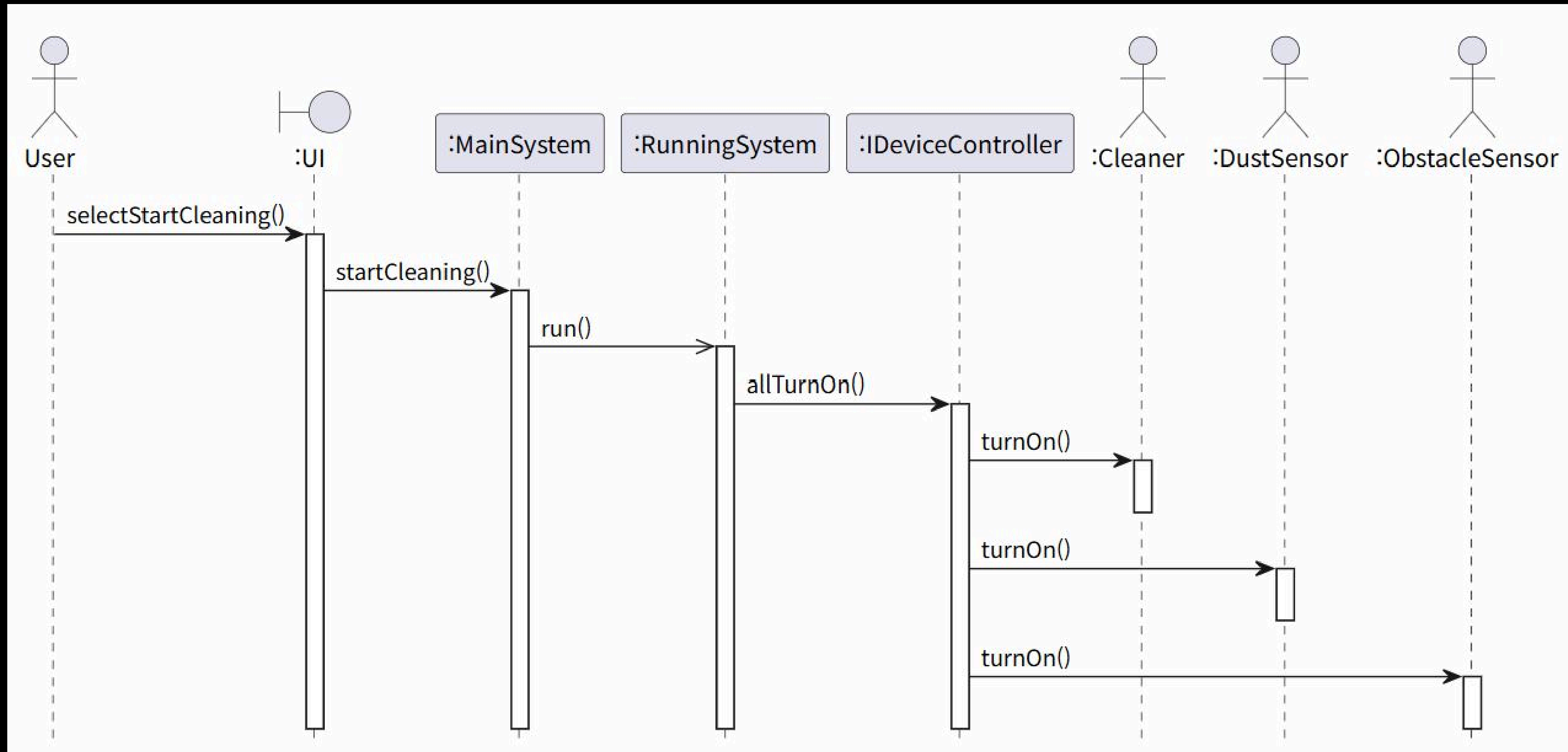
Sequence Diagram : UC #1



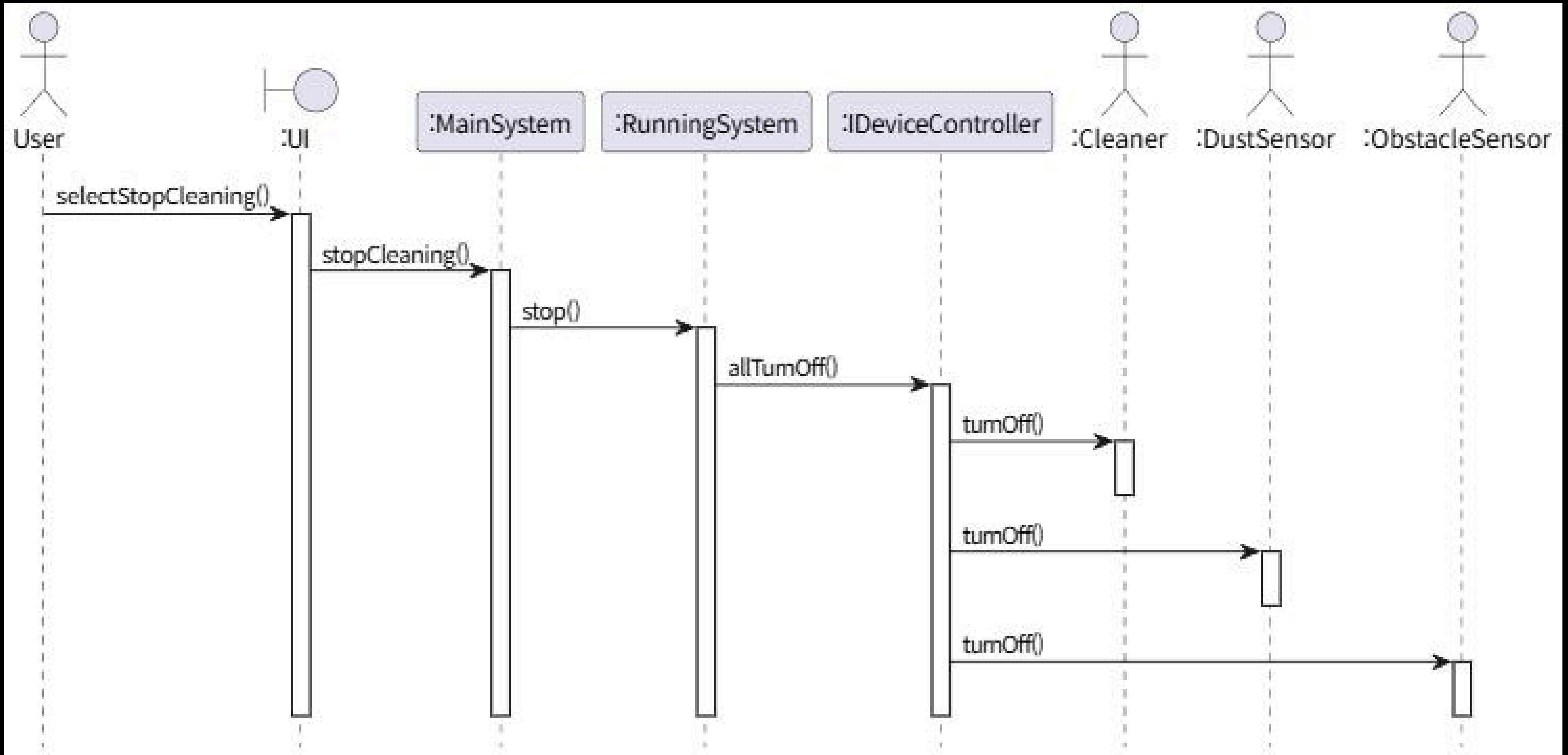
Sequence Diagram : UC #2



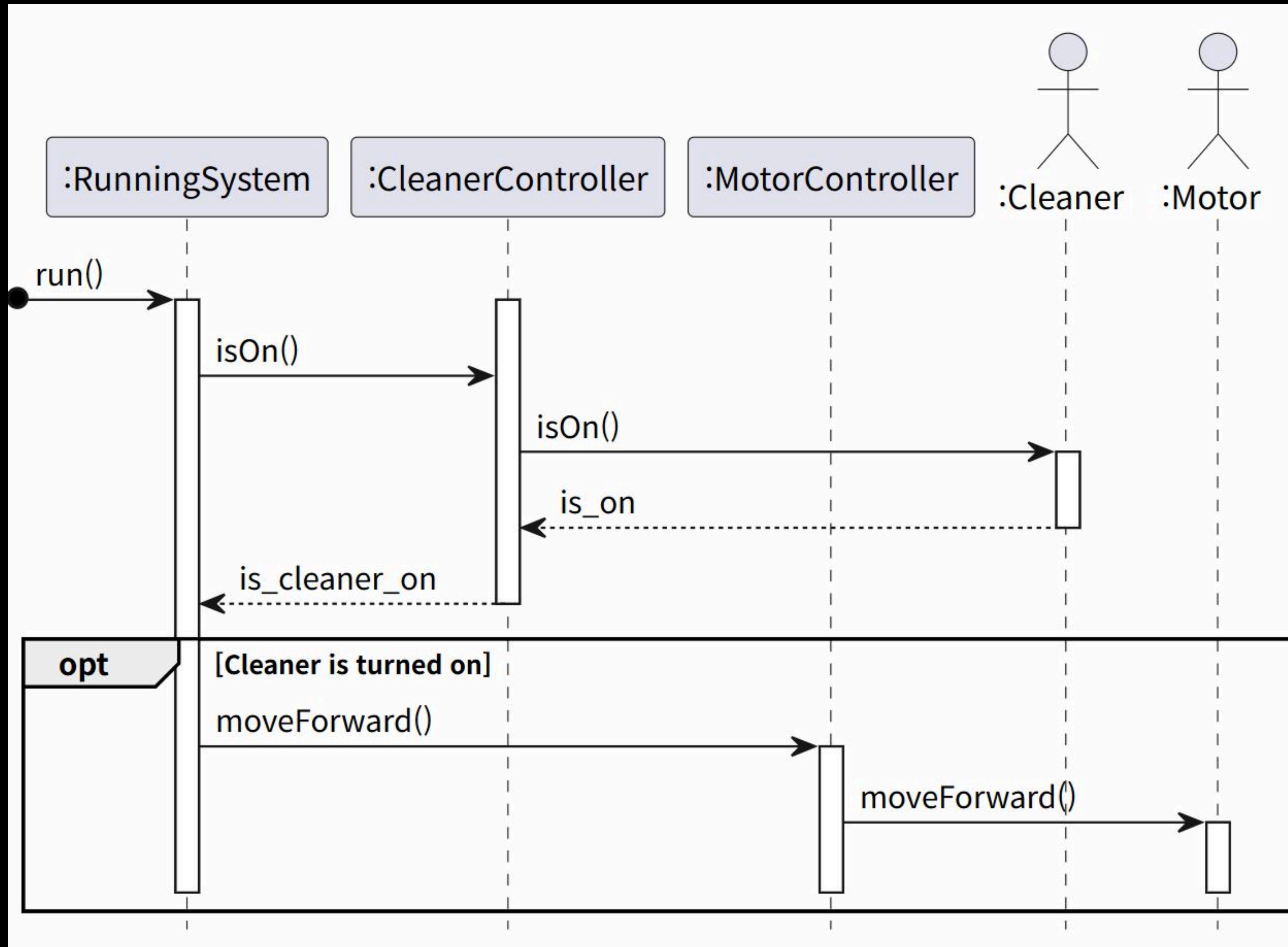
Sequence Diagram : UC #3



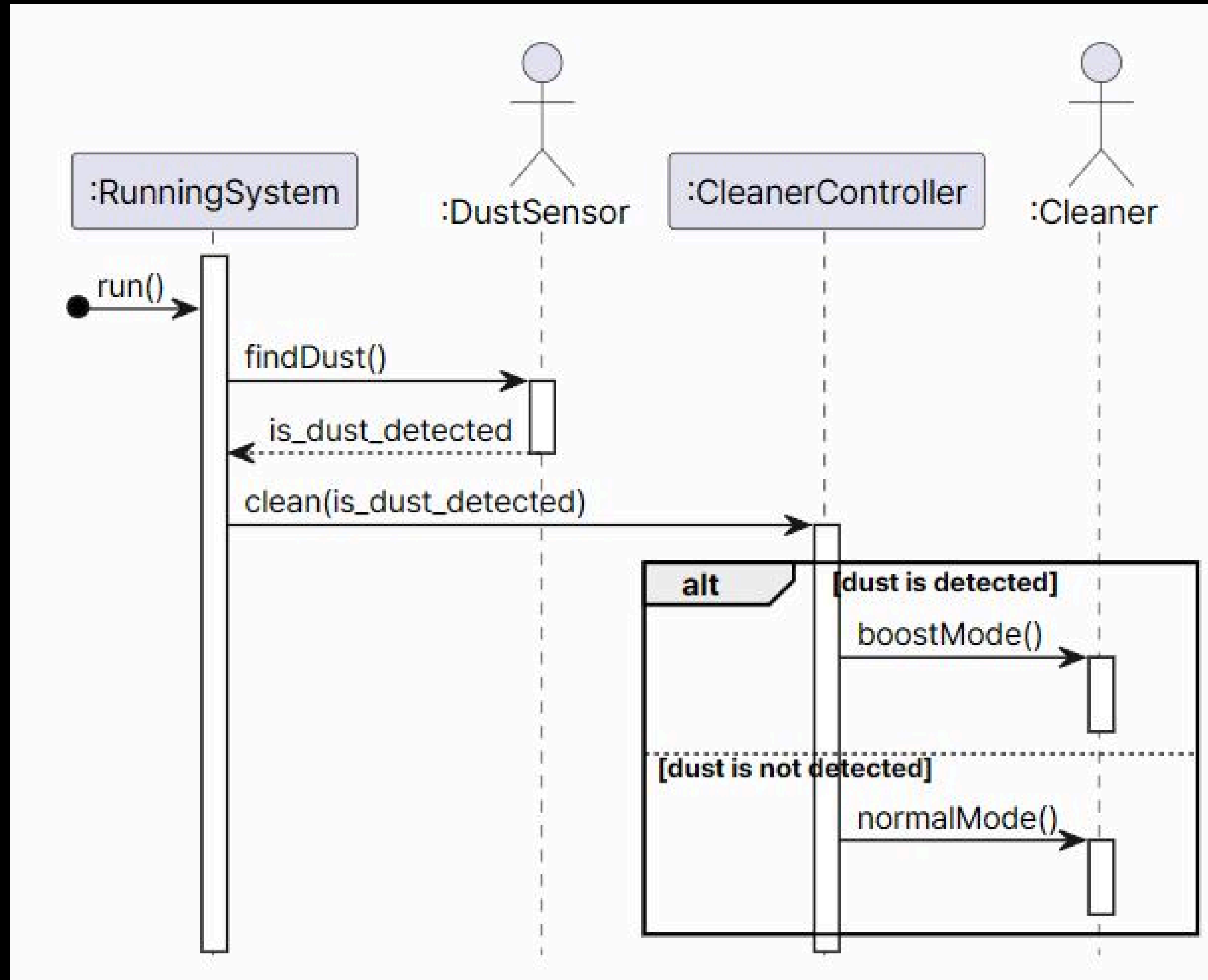
Sequence Diagram : UC #4



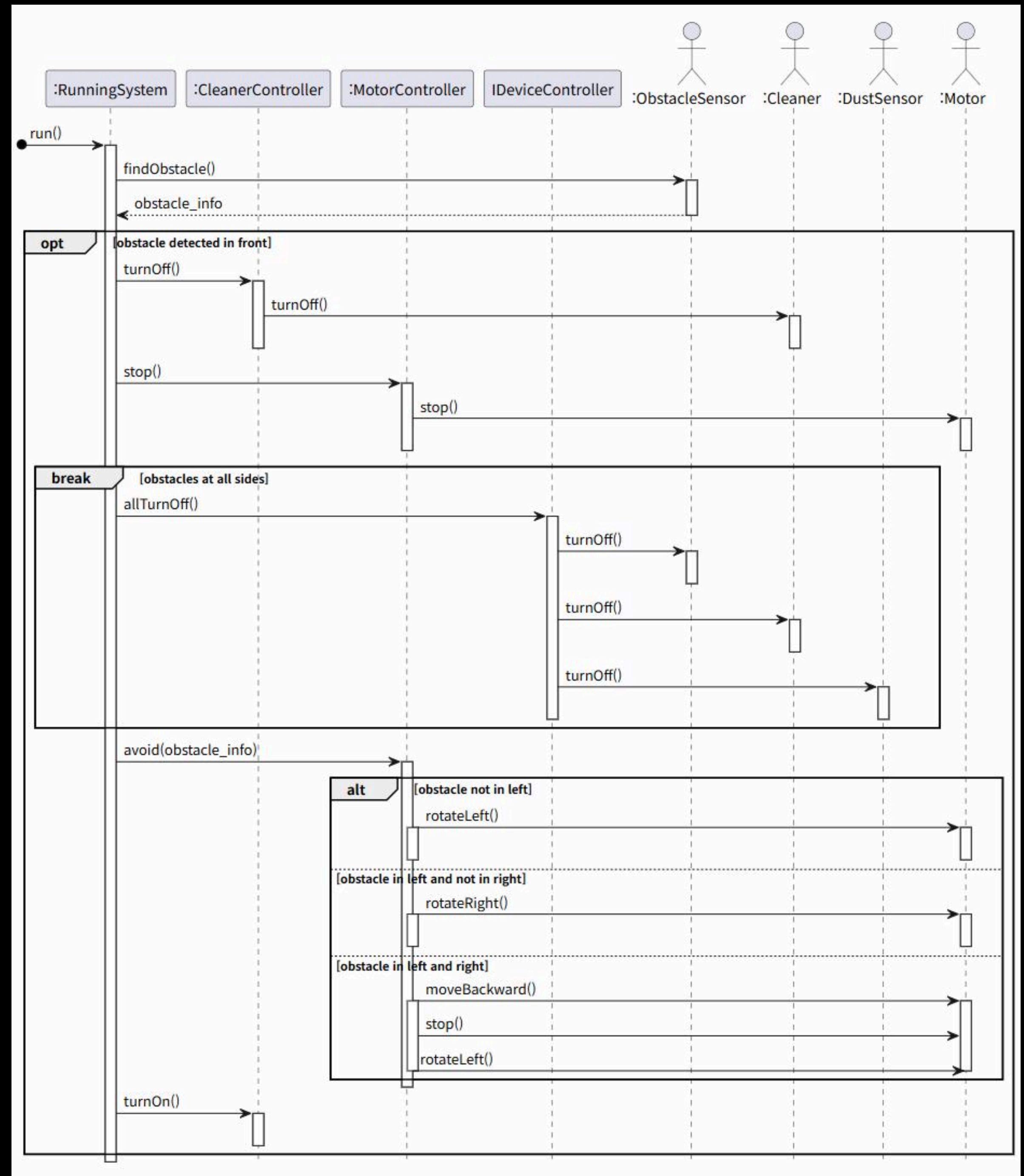
Sequence Diagram : UC #5



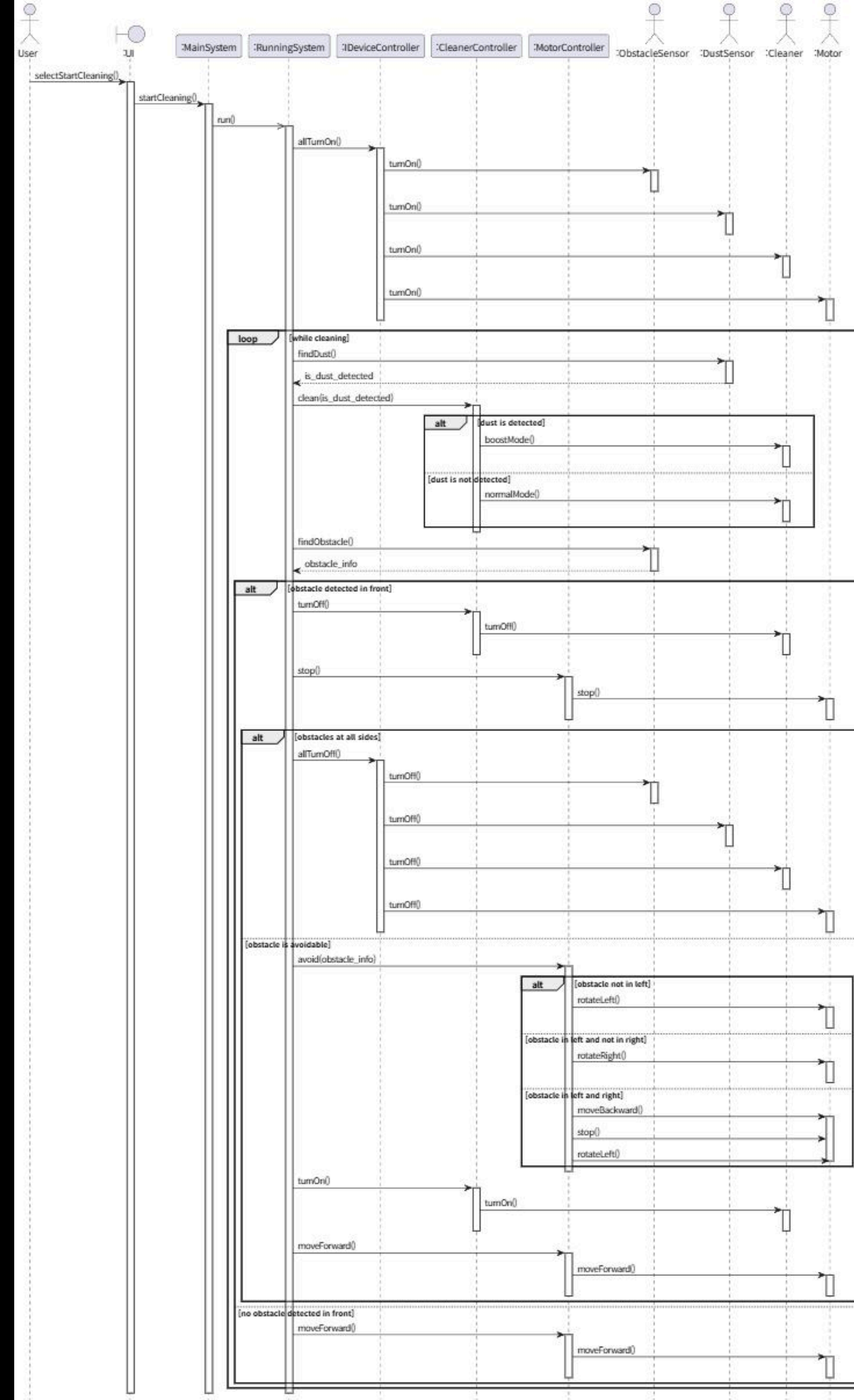
Sequence Diagram : UC #6



Sequence Diagram : UC #7



Sequence Diagram : Whole Sequence



Thank

you!

