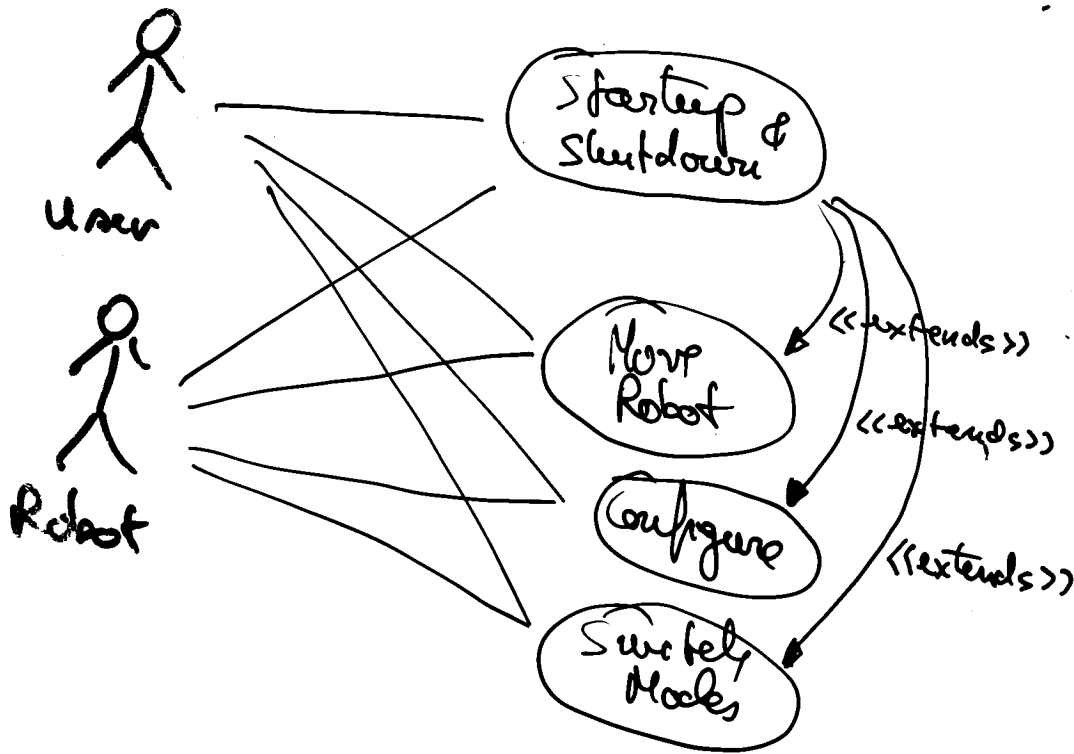
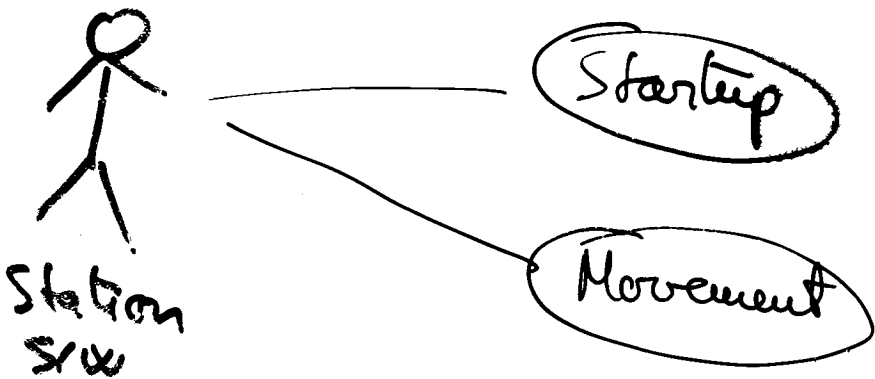


Example of Use case diagram & use case  
 ↓  
 story!



For station



For robot.

OBS: You can choose different levels of abstraction here... For Robot component, you might include

Robot hardware

or

Left engine, Right engine, back

## Use cases      Example 1

Startups & Shutdowns

Actors: User, Robot

Pre-condition } not needed here  
Post-condition }

### Flow of events

- the user starts the station s/w
- the main screen appears. The station attempts a connection with the Robot
- ~~while~~ as long as the connection is not established, the "off-line" status is displayed and movement keys are disabled. This is shown usually on main screen. \*
- when connection is established, "on-line" status is displayed and movement keys are ~~disabled~~ enabled.

---

\* While off-line, the user can only configure the Robot (see Configure use case).

## Use cases Example 2

### Movement (for Robot)

" This is an example of a trickier use case ;  
if you want to describe movement,  
a state-chart is perhaps more suitable "

Actors : - station ~~XXXX~~

Precondition : - robot connected

Postcondition : - robot connected

### Flow of events

- the station sends a command.

- cases :

o stop : robot stops immediately <sup>either linear or angular motion.</sup>  
(notice, this is zero mass work ;  
you may split "movement" use  
case in two  $\leq$  0-mass ; connect  
inertial ; connect  
the two with "movement" by  
"user" relationship )

o turn (right/left) : if moving, robot  
stops immediately ; then it turns using  
angular speed  $\perp$ .

⋮

[... etc ...]