Usecase	**/0/ NAOCalibration**
Aim	get initial NAO Position
Precondition	NAO stood up, NXT's have fixed position
Postcondition success	NAO is calibrated and the first NAO is the reference Position
Postcondition fail	Mission failed
Actors	- MCC - NAO's - NXT's
Triggering event	MCC started Mission
Description	1. NAO's/MCC: The NAO calibrates two NXT's and sends the data to the MCC 2. MCC/NAO's: The MCC calculates the position of the NAO and tells the NAO his own position

Usecase	**/1/ AutonomicExploration**
Aim	Map Exploration
Precondition	Program is started
Postcondition success	- Part of the map is explored
Postcondition fail	-
Actors	- MCC - NAO's - NXT's
Triggering event	MCC set the state to "AutonomicExploration"
Description	1. MCC: "AutonomicExploration" is started 2. MCC/NAO's/NXT's: NXT's are /U2/calibrated 3. NXT's explore the area 4. MCC: NXT's are sent back to the calibration position 5. MCC/NAO's/NXT's: NXT's are /U2/calibrated

Usecase	**/2/ Calibration**
Aim	Calibration of a certain NXT so that the MCC knows the relative exact position of the NXT
Precondition	- The current state is "AutonomicExploration" or "GuidedExploration" - The MCC has sent back a certain NXT to the calibration position and the NXT has arrived
Postcondition success	NXT is calibrated
Postcondition fail	Calibration is aborted and NXT is asked to change his position
Actors	- MCC - NAO's - NXT's
Triggering event	MCC starts calibration
Description	1. MCC/NAO's: NAO locates the NXT and aborts the calibration if this is not possible 2. MCC/NXT: MCC computes the position of the NXT 3. MCC/NXT: MCC updates the NXT's position 4. MCC: MCC computes the absolute error and updates the map

Usecase	**/3/ GuidedExploration**

Aim	Sufficient map exploration and computed path to target position so that the NAO can go to target position
Precondition	"AutonomicExploration" finished
Postcondition success	- Target found - Path found - At least 80% explored area
Postcondition fail	GuidedExploration restartet
Actors	- MCC - NAO's - NXT's
Triggering event	MCC set the state to "GuidedExploration"
Description	1. MCC: "GuidedExploration" is startet 2. MCC/NAO's/NXT's: NXT's are /U2/calibrated 3. MCC: Areas to be explored are computed 4. MCC/NXT's: NXT's are send to these areas 5. MCC/NXT's: NXT's are sent back their initial position 6. MCC/NAO's/NXT's: NXT's are /U2/calibrated

Usecase	**/4/ Path verification**
Aim	Verification of the computed path by a NXT
Precondition	"GuidedExploration" finished
Postcondition success	Verification successfull
Postcondition fail	Verification failed and - "PathVerification" is restartet with another path or - "GuidedExploration" is restarted
Actors	- MCC - NXT's
Triggering event	MCC set the state to "PathVerification"
Description	1. MCC: MCC divides the computed path in straight lines 2. MCC/NXT: MCC sends /6/ go to position for every straight line

Usecase	**/5/ Retrieve lost NXT**
Aim	Random go to commands untill the NXT is in NAO range
Precondition	The NXT doesn't find back to the NAO
Postcondition success	The NXT is in the NAO range
Postcondition fail	If this Case fails we are LOST
Actors	- MCC - NXT's - NAO's
Triggering event	The NXT doesn't find back while GuidedExploration or Calibration
Description	1. NXT: drives randomized throug the area in little steps 2. MCC/NAO: notifies the NAOs that the NXT is missing 3. NAO/MCC/NXT: NAO reports the first sight fo the NXT to the MCC and the MCC stops the NXT

Usecase	**/6/ go to position**
Aim	The NXT goes to an specific position
Precondition	None
Postcondition success	The NXT thinks that he has arrived at the given position

Postcondition fail	The NXT is unable to reach the position. Maybe result in /5/ Retrieve lost NXT
Actors	- MCC - NXT's
Triggering event	None
Description	1. NXT/MCC: MCC tells the NXT the position to go to 2. NXT/MCC: NXT goes to the position and tells the NXT that he has arrived

Usecase	**/7/ NAOwalk**
Aim	The NAO goes to the target
Precondition	/4/ Path verification successful
Postcondition success	Target reached
Postcondition fail	Mission failed
Actors	- MCC - NXT's - NAO's
Triggering event	MCC set the state to "NAOwalk"
Description	1. NAO: walks to the target