Types

Pos == $0 \ldots 7 \times 0 \ldots 7$

Message is a String ∪ None

Max_Battery :: 5

Rover State ────────────────────────

current Position	:	Pos
obstacles	:	ℙ Pos
completed	:	Message
failure	:	Bool
goal	:	ℙ Pos
batteryLevel	:	ℕ
charging Complete	:	Bool
recharge	:	Bool
at Goal	:	Bool
identified Failure	:	Message
command	:	Message
data Collected	:	Message
helperID	:	ℕ

(blue annotation: (reboot / ask for help) (simplified))

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batteryLevel ∈ $0 \ldots$ Max_Battery

charging Complete ⟺ batteryLevel = Max_Battery

current Position ∉ Obstacles

goal ∉ Obstacles

helperID ∈ $\{1, 2\} \cup$ None

Vars not used from table 1 (heading in red)

Vars not used from table 1

vision Obstacles	:	ℙ Pos
Safe Location	:	$(x, y), x \in \mathbb{N}, y \in \mathbb{N}^{\#}$
return2 Normal operation	:	bool
prioritised Goals	:	ℙ Pos
Chargers	:	ℙ Pos
invalid Map	:	Message
no More viable Plans	:	Message
failure Mode Invoked	:	Message
no Plan	:	Bool
system State	:	(failure, noPlan, messages)
plan 2C	:	seq Pos
plan 2D	:	seq Pos
recheck	:	Bool
communication Data	:	(messages, data collected, transited)
GSO obstacles	:	ℙ Pos
failed 2 Reconnect	:	Bool

Rover Store INIT

- currentPosition : (1,1)
- obstacles : {(2,3), (4,4), (5,7), (7,5)}
- completed : Message
- failure : False
- goal : (7,7)
- batteryLevel : 5
- chargingComplete : True
- recharge : False
- atGoal : False
- identified failure : None
- command : None
- dataCollected : None
- helperID : None

	1	2	3	4	5	6	7
7				X		X	
6							
5							X
4			X				
3	X						
2							
1	X						