

Score Sheet: Smart City Robots - Clever Sand Management

General Information

Team Name: TU Munich
 The Hague University

Date: 13 May (Practice Runs) 14 May (Practice Runs) 15 May (Finals)

Run Number: Practice Run 1 Practice Run 2 Final Run (only 15 May)

Present: Yes / No (add -3 under Penalties)

Execution Time (20 minutes in total)*:

* Teams may try multiple times within the 20-minute window. Only the best attempt is recorded below.

Attempt Tracker (Referee Internal Use)

Attempt #	Achievement Points	Time Used	Result (Success/Crash/Manual Stop)
1			
2			
3			

Official Best Run Achievements (1 Point per "Yes")

Check "Yes" only if the task was completed without pilot intervention. Maximum score is 12 points

Phase	Task Description	Achievement?
General	Maintains stable operation despite environmental factors	<input type="checkbox"/> Yes / <input type="checkbox"/> No
Phase 1: Entry	Autonomously enters the competition area from the start position	<input type="checkbox"/> Yes / <input type="checkbox"/> No
	Successfully navigates the competition area while avoiding fixed and moving obstacles	<input type="checkbox"/> Yes / <input type="checkbox"/> No

Phase	Task Description	Achievement?
Phase 2: Mapping	Autonomously maps the environment to identify cleaning zones	<input type="checkbox"/> Yes / <input type="checkbox"/> No
	Correctly identifies zones with sand accumulation (especially corners)	<input type="checkbox"/> Yes / <input type="checkbox"/> No
Phase 3: Cleaning	Successfully removes sand from a designated corner/area.	<input type="checkbox"/> Yes / <input type="checkbox"/> No
	Identifies and collects small debris (e.g., cigarette butts, litter) within the sand	<input type="checkbox"/> Yes / <input type="checkbox"/> No
	Stores collected sand securely within the robot's storage system.	<input type="checkbox"/> Yes / <input type="checkbox"/> No
Phase 4: Return	Autonomously returns to the starting position after cleaning while avoiding fixed and moving obstacles	<input type="checkbox"/> Yes / <input type="checkbox"/> No
	Successfully releasing the storage system with help from a team member	<input type="checkbox"/> Yes / <input type="checkbox"/> No
	Lands autonomously on the marked starting point.	<input type="checkbox"/> Yes / <input type="checkbox"/> No
Extra bonus points	A minimum of 2 litre sand has been collected	<input type="checkbox"/> Yes / <input type="checkbox"/> No
	Autonomously releasing and emptying the storage system in the dedicated space	+2 pts
	1 extra point per 250 ml sand *	pts
	1 extra point per piece of waste	pts

Total Achievement Score: /12

Total Achievement extra bonus points:

Penalties & Disqualifications

Category	Behaviour Description	Penalty
Penalising	Not performing in a practice / final run	<input type="checkbox"/> -3 pt
Penalising	Manual intervention outside of authorized recovery	<input type="checkbox"/> -1 pt / instance
Penalising	Uncontrolled and/or high speed contact/ collision with fixed obstacles/structures (no damage) while navigating through the and cleaning the competition area	<input type="checkbox"/> -1 pt / instance
Disqualifying	Contact / collision with moving obstacle	<input type="checkbox"/> VOID RUN
Disqualifying	Uncontrolled and/or high speed contact/ collision with fixed obstacles/structures (with damage) while navigating through the and cleaning the competition area	<input type="checkbox"/> VOID RUN
Disqualifying	The robot moves outside the designated safety corridor.	<input type="checkbox"/> VOID RUN

Final Calculation & Signatures

Achievement Points ('yes' points and identification point):

Total Penalties: -

FINAL SCORE: _____

Tie-Break Metric 1: Total ml of sand successfully removed over all runs (Cleaning efficiency)

Tie-Break Metric 2: Total number of waste items removed over all runs

Referee Signature

Team Leader Signature

Comments and Feedback