

# Score Sheet: Robots for Coastal Protection and Nature Preservation

## General Information

**Team Name:**  University of Bonn  
 Saxion University of Applied Sciences

**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 have one official attempt. The best attempt is recorded below.

## Attempt Tracker (Referee Internal Use)

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

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

Check "Yes" only if the task was completed without pilot intervention.

Phase	Task Description	Achievement?
<b>General</b>	Maintains stable and safe operation despite challenges (wind, rain, sand)	<input type="checkbox"/> Yes / <input type="checkbox"/> No
<b>Phase 1: Navigation</b>	Autonomously departs from starting point and navigates coastal zone	<input type="checkbox"/> Yes / <input type="checkbox"/> No
	Follows predefined or self-generated path for systematic coverage of the competition area	<input type="checkbox"/> Yes / <input type="checkbox"/> No
	Successfully manoeuvres around obstacles and maintains safety boundaries	<input type="checkbox"/> Yes / <input type="checkbox"/> No

Phase	Task Description	Achievement?
<b>Phase 2: Identification</b>	Generates distinct real-time alert* for mandatory Native species (Glad Biggenkruid / Hypochaeris Glabra)	<b>1 pts/hit**</b>
	Generates distinct real-time alert* for mandatory Invasive species (Amerikaanse vogelkers / Prunus serotina)	<b>1 pts/hit**</b>
<b>Phase 3: Completion</b>	Returns autonomously to starting point upon mission completion	<input type="checkbox"/> Yes / <input type="checkbox"/> No

\* Identification must be accompanied by a successful real-time alert to receive achievement points.

\*\* Points are awarded per unique plant location. Repeated detections of the same individual plant do not incur additional points

**Total Achievement Score Yes (6):**

**Total Achievement Score Identification:**

## Data Quality

The Data Bonus is added to the Achievement Score. Maximum extra score is 3 points

Following the conclusion of a run, teams are granted a 1-hour window to deliver their final report—including mapping data and extra species footage—to headquarters (The Zilt) for official validation

Selection	Data Quality Definition	Points
<b>High Quality Map</b>	Clear, proportional 2D or 3D map showing species locations relative to the start point	<b>2 pts</b>
<b>Basic Coverage Log</b>	Basic trajectory plot showing where the robot travelled, but with less spatial detail	<b>1 pts</b>
<b>No/Poor Map</b>	No map provided or data is unreadable.	<b>0 pts</b>
<b>Timing</b>	Data submitted after 60 minutes	<b>0 pts</b>
<b>Additional Species Bonus*</b>	1 point per unique species identified from <a href="#">Annex 1</a> (excluding the two mandatory alert species). Multiple hits of the same plant do not incur extra points.	<b>1 pts/ species</b>

**Total Data Bonus Score:** /3

**Total Additional Species Bonus:**

\*The additional Species Bonus will be added on the *Additional Species Bonus Score Sheet: Robots for Coastal Protection and Nature Preservation* in the Zilt

## Penalties & Disqualifications

Category	Behaviour Description	Penalty
<b>Penalising</b>	False native species alerts (incorrect identification) Glad Biggenkruid / Hypochaeris Glabra)	<input type="checkbox"/> -1 pt / instance
<b>Penalising</b>	False invasive species alerts (Amerikaanse vogelkers / Prunus serotina) (incorrect identification)	<input type="checkbox"/> -1 pt / instance
<b>Disqualifying</b>	Robot damages vegetation or environmental elements	<input type="checkbox"/> <b>VOID RUN</b>

Category	Behaviour Description	Penalty
<b>Disqualifying</b>	Breach of safety corridors or restricted zones.	<input type="checkbox"/> <b>VOID RUN</b>

### Final Calculation & Signatures

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

**Data Bonus: +**

**Additional Species Bonus Score Sheet: +**

**Total Penalties: -**

**FINAL SCORE: \_\_\_\_\_**

**Tie-Break Metric 1:** The achieved area coverage of the surveyed environment is used first, with a higher rank given to greater coverage

**Tie-Break Metric 2:** If teams remain tied, the number of correctly detected occurrences of the designated native species is used

**Referee Signature**

**Team Leader Signature**

**Comments / Feedback or Remarks**