IPSC IT FEST 2026

Judging Rubric

Half-Life

Version 2 · 5 November 2026 · changes highlighted

The Doon School

DEHRADUN

This document is part of the Half-Life document pack. It sets out how a team is scored. Every item is scored by counting, measuring, timing or checking, so that two judges reach the same score. Terms used here are defined in the Rulebook, Terminology.

Version 2, 5 November 2026. Text highlighted in yellow is new or changed since the version of 9 October 2026. Every change is listed in the table "Changes in this version" at the end of this document.

1. Total

1.1 Each run is scored out of 100.

Part	Criterion	Points
2.1	Design and build quality	15
2.3.1	Object sorting	48
2.3.2	Completion time	25
2.3.3	Parking accuracy	6
2.3.4	Wall contacts	6
	Total	100

1.2 Parts 2.3.1 to 2.3.4 together are the run performance score (85). The run performance score is not reduced below 0 by deductions.

1.3 A team's qualification score is the higher of the totals of its two qualification runs (Rulebook §3.1). The design and build quality score is given once, at the robot's inspection session (Inspection and Safety §2.1), and counts in every run. If the robot is inspected again under Inspection and Safety §2.1, the new score counts from the next run.

2. Criteria

2.1 Design and build quality (15 points)

The inspection team scores each item at the inspection session. Each item is either met or not met. The team hands the wiring diagram and the parts list to the inspection team at the inspection session.

Item	Points	Met when
D1 No exposed conductor	3	No bare conductor, bare terminal or damaged insulation is visible on the robot.
D2 Secured wiring	3	After the robot is lifted 10 cm, tilted 45 degrees to each side and set down, no wire, connector or component has come loose.
D3 No prototyping boards	4	No breadboard and no jumper-wire prototyping board is used for any power or signal connection.
D4 Wiring diagram	3	A wiring diagram is handed over and shows the microcontroller, every motor, every servo and every sensor.

D5 Parts list	2	A parts list is handed over and every motor, servo, sensor and microcontroller on the robot appears in it.

2.2 Basic rules (not scored)

Following the basic rules earns no points. The inspection team checks them at the inspection session and again at the pre-run check before every run against Inspection and Safety §1: maximum dimensions, maximum mass (1500 g with a tolerance of +10%, so a reading of up to 1650 g passes), standby mode, the start and stop button, and the absence of wireless communication. A robot that fails any of these checks may not run until it passes (Inspection and Safety §2.2).

2.3 Run performance (85 points)

The judge panel times every lift, every placement and the end of the run to the nearest 0.1 second (Rulebook §5.2).

2.3.1 Object sorting (48 points)

Each of the 8 objects is worth up to 6 points: 3 for the correct bin and up to 3 for speed.

Item	Points per object	Awarded when
Correct bin	3	The object is placed in the bin of its own colour.
Speed	3	Correct bin, and handling time of 20.0 seconds or less.
	2	Correct bin, and handling time over 20.0 and up to 30.0 seconds.
	1	Correct bin, and handling time over 30.0 and up to 45.0 seconds.
	0	Handling time over 45.0 seconds, wrong bin, or not placed.

Hazardous (radioactive) rule. A hazardous object that has been lifted and is not in the red bin when its time-critical window closes scores 0 points, whatever happens afterwards, and incurs a deduction of 3 points. The window closes 45.0 seconds after the object's first lift, or at the end of the run, whichever is earlier. The deduction therefore applies when a lifted hazardous object is placed late, is placed in the wrong bin, is dropped and not placed in time, or is still outside the red bin when the run ends. A hazardous object that is never lifted scores 0 points and incurs no deduction. A hazardous object placed in the red bin within its window and then removed by the bin marshal is in the red bin for this rule.

An ordinary object placed in the wrong bin scores 0 points and incurs no deduction.

Emptying and prohibited actions. An object that the bin marshal removes from a bin (Arena Specification §9.2) stays placed and keeps its points. An object that is pushed, or that the robot removes from a bin, scores 0 points (Rulebook §4.9).

Example: a robot places 5 ordinary objects in the correct bins with handling times of 18, 25, 25, 33 and 50 seconds (3 + 3, 3 + 2, 3 + 2, 3 + 1 and 3 + 0 points, which is 23). It places one hazardous object in the red bin after 28 seconds (3 + 2 = 5). A second hazardous object reaches the red bin 52 seconds after its first lift (0 points and a deduction of 3). It never lifts the last object (0). Object sorting = 23 + 5 - 3 = 25 points.

2.3.2 Completion time (25 points)

Completion time T is the time from the start button press to the moment the robot stops moving in the parking zone, for a run that ends under Rulebook §4.5(a).

Completion time T	Points
120.0 seconds or less	25
Over 120.0 seconds and under 300.0 seconds	25 × (300 - T) ÷ 180, rounded to one decimal place
No completion time (the run did not end under Rulebook §4.5(a))	0

Example: T = 210.0 seconds gives 25 × 90 ÷ 180 = 12.5 points.

2.3.3 Parking accuracy (6 points)

Awarded only for a run that ends under Rulebook §4.5(a).

Position of the parked robot	Points
Every part of the robot is inside the parking zone	6
Some part of the robot is outside the parking zone	3

2.3.4 Wall contacts (6 points)

Wall contact points = 6 minus 1 for each wall contact during the run, with a minimum of 0. A run that ends before the robot lifts any object scores 0 for this item. Contact with a bin or an object is not a wall contact.

3. Who scores what

3.1 The design and build quality items at §2.1 are scored, and the basic rules at §2.2 are checked, by the inspection team during the robot's inspection session, as set out in Inspection and Safety §2.1. The basic rules are checked again at the pre-run check held at the arena immediately before every run.

3.2 The run performance items at §2.3 are scored by the judge panel stationed at the arena during the live run.

3.3 The Event Head reconciles and totals the inspection scores and the run performance score for each team before publication.

4. Tie-breaks

4.1 Ties are broken in the order set out in Rulebook §3.4: object sorting score, then completion time, then wall contacts, then design and build quality. If teams are still tied, they share the placing, and where the tie is for the last qualifying place, every tied team qualifies. Places 5th and below follow Rulebook §3.5.

5. Publication of scores

5.1 A team's design and build quality score is published to that team immediately after its inspection session concludes.

5.2 A team's run performance score is published to that team once the judge panel has checked its timings, and no later than the start of the next round.

5.3 A team's total score is published no later than the start of the following stage of the event (Rulebook §3).

Changes in this version

Version 2 of 5 November 2026 replaces the version of 9 October 2026. Every change is listed below and highlighted in the text.

Clause	Was (9 October 2026)	Now (5 November 2026)
§1.3	Design and build score given at the inspection session before each run and belongs to that run	Given once at the robot's inspection session and counts in every run; a re-inspection's score counts from the next run
§2.2	Basic rules checked at the inspection session	Also checked at the pre-run check before every run
§2.3.1, hazardous rule	Not covered	A red object placed in time and then removed by the bin marshal counts as in the red bin
§2.3.1, new paragraph	Not covered	Marshal-removed objects keep their points; pushed objects and objects removed by the robot score 0
§2.3.4	Wall contacts only	Adds: contact with a bin or an object is not a wall contact
§3.1	Inspection session held immediately before the team's run	Inspection session held once (Inspection and Safety §2.1); basic rules re-checked at the pre-run check
§4.1	Placings below the final not covered	Adds: places 5th and below follow Rulebook §3.5