

Science Olympiad 2015-2016 Season Hovercraft Checklist / Data Sheet

Version 2.0

Rules Requirements

- 1. Competitors construct up to 2 vehicles
- 2.b. Vehicle(s) and material impounded
- 2.d. Reference materials secured in 3 ring binder
- 2.e. Competitors must wear eye protection during set up and testing of the vehicles.
- 3.b. Vehicle(s) length is ≥ 15.0 cm and ≤ 30.0 cm, and height < 20.0 cm
- 3.b. Vehicle(s) length doesn't change during run
- 3.c. Vehicle(s) mass is ≤ 2000.0 g
- 3.e. Vehicle(s), except for propeller/shield, doesn't extend beyond track side rails
- 3.f. Vehicle(s) has 1/4" dowel < 5.0 cm from front edge with top ≥ 30.0 cm and ≤ 35.0 cm above bottom
- 3.f. Dowel(s) has mounted rigid flag facing rear sized at least 5.0 cm by 5.0 cm
- 3.g. Only commercial batteries ≤ 9.0 V used. No other energy used or stored.
- 3.g. No circuit exceeds 9.0 V
- 3.h. Vehicle(s) has ≤ 2 propellers and 2 motors
- 3.h Propeller(s) diameter ≤ 14.0 cm cross section and shielded from contact with a 1/4" dowel
- 3.i No brushless motors or I.C.s
- 3.j. Vehicle(s) are levitated
- 3.k. Vehicle(s) has electric switch to start and automatic (non-remote controlled) stopping system
- 5.b.v. Team doesn't touch vehicle after motor is on

Part 2: Written Test

Exam Score (50 pts max) _____

Vehicle Data

Mass Vehicle 1 (250.0 – 2000.0 g) _____

Mass Vehicle 2 (250.0 – 2000.0 g) _____

Team #: _____

Tier: _____

Team Name:

Competitor Names:

Successful Run 1

Vehicle # used _____

Timer #1 (nearest 0.1 s) _____

Timer #2 (nearest 0.1 s) _____

Timer #3 (nearest 0.1 s) _____

Run Time (Middle value of above) _____

Successful Run 2

Vehicle # used _____

Timer #1 (nearest 0.1 s) _____

Timer #2 (nearest 0.1 s) _____

Timer #3 (nearest 0.1 s) _____

Run Time (Middle value of above) _____

Teams with Unsuccessful Runs

Missed impound? _____

Vehicle didn't move or attempt run? _____

Vehicle moved partially? _____