



HELICOPTERS B/C

Team Checklist – 2021

Rank:	_____
Tier:	_____
Final Score:	_____

Team Number: _____ School & Team Name: _____

Student Names: _____

This checklist is based on rules available at https://www.soinc.org/sites/default/files/uploaded_files/HelicoptersBC.pdf.

DEVICE A DEVICE B ← CHECK-IN (UP TO 2 HELICOPTERS)

Construction & Competition Parameters:

T	F	T	F	3.b. No components containing any pre-glued joints or pre-covered surfaces are used.
T	F	T	F	3.c. A flat balsa wood disc, large enough to cover a dime, is the uppermost part of the helicopter.
T	F	T	F	3.d. Boron filaments are not used in the construction of the helicopter.
T	F	T	F	3.e. The total mass of the helicopter throughout flight (excluding the rubber motor) \geq 2.50 g.
T	F	T	F	3.f. The helicopter uses up to three fixed-pitch rotors, each with diameter \leq 20.0 cm. Other than the rotors, there are no other lifting surfaces.
T	F	T	F	3.g. Single-bladed rotors, if used, have maximum radius from the center of rotation to the blade tip \leq 12.5 cm.
T	F	T	F	3.h. Rotors are constructed by students themselves and are not commercially available rotors or propellers.
T	F	T	F	3.i. Rubber motor(s) of any mass is/are used to power the helicopter and are removable from the helicopter.
T	F	T	F	3.h. The helicopter is labeled so that the event supervisor can easily identify the team to which it belongs.
T	F	T	F	3.k. Students are able to answer questions regarding the design, construction, and operation of the device.
T	F	T	F	4.b. Participants do not receive outside assistance, materials, or communication once they enter the cordoned off competition area to practice, to trim, for inspection, or to compete.
T	F	T	F	4.d. Participants do not use electricity.
T	F	T	F	4.j. Participants do not steer the helicopter during flight.

1. T F 3. T F **HELICOPTER MEETS ALL CONSTRUCTION AND COMPETITION PARAMETERS ABOVE**

Bonus:

2. 4. 5.a. Number of single-bladed rotor assemblies (up to 3) on the helicopter

FLIGHT LOG

5. Complete Incomplete (10% deduction) Not present (30% deduction)	4.c. Is flight log complete, incomplete or not present? (Circle one) <i>Complete means including 6 or more parameters (including motor size before windup, number of turns or torque on the motor at launch, flight time, and 3 additional) for 10 or more test flights prior to the competition.</i>
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1ST FLIGHT

6. A B

7. ____:____.____

8. ____:____.____

9. ____:____.____

2ND FLIGHT

10. A B

11. ____:____.____

12. ____:____.____

13. ____:____.____

← OFFICIAL FLIGHTS (IN 8 MIN.)

Which helicopter from above was used?

Timer 1

Timer 2

Timer 3

← **Flight Times**
(minutes:seconds)

14. T F General Rule: The team is disqualified. (Notify the team and their coach as soon as possible.)