



# PING PONG PARACHUTE B/C – 2020

Rank: \_\_\_\_\_

Tier: \_\_\_\_\_

Final Score: \_\_\_\_\_

Team Number: B/C \_\_\_ Team Name: \_\_\_\_\_

Student Names: \_\_\_\_\_

## CHECK-IN

### Eye Protections and Logs

T F 2.c. Participants properly wear eye protection at all times. Participants without proper eye protection is immediately informed and given a chance to obtain eye protection if time allows.

T F 4.a. Team presents a flight log of recorded data for each rocket. Data include 5 or more parameters (pressure (psi), estimated/recorded peak flight height (ft), time aloft (seconds) and 2 additional) for 15 or more test flights prior to the competition for each rocket.

T F 4.b. Team use their data to justify their pressure choice.

### 1. T F Eye Protections and Logs are present for launch (IF FALSE, DO NOT LAUNCH)

#### Rocket A Rocket B Construction Parameters: (Up to 2 rockets)

T F T F 3.a. Rocket pressure vessels is made from a single 1-liter or less plastic carbonated beverage bottle with a nozzle opening internal diameter of approximately 2.2 cm (a ½-inch Schedule 40 PVC pipe must fit tightly inside the nozzle opening) and a standard neck height from flange to bottle's opening of under 1.6 cm. The bottle label is presented.

T F T F 3.b. The structural integrity of the pressure vessel is not altered. This includes, but is not limited to: physical, thermal or chemical damage (e.g., cutting, sanding, using hot or super glues, spray painting).

T F T F 3.c. The nose of the rocket is rounded or blunt at the top and designed such that when a standard bottle cap (~3.1 cm diameter x 1.25 cm tall) is placed on top of the nose, no portion of the nose touches the inside top of the bottle cap.

T F T F 3.d. Only tape is used to attach fins and other components to the pressure vessel. No glues of any type is used on the pressure vessel. No metal of any type is used anywhere on the rocket or parachute payload system.

T F T F 3.e. Fins and other parts added to the bottle are 5 cm or higher above the level of the bottle's opening to ensure rockets fit on the launcher.

T F T F 3.f. All energy imparted to the rocket/parachute payload system originates from air pressure provided by the Supervisor; no water. Gases other than air, explosives, liquids including water, chemical reactions, pyrotechnics, electrical devices, elastic powered flight assist, throwing devices, remote control, and tethers are not used at any time.

### 2. T F 3. T F ROCKET MET ALL CONSTRUCTION PARAMETERS ABOVE (IF FALSE, THAT ROCKET CANNOT BE LAUNCHED)

Only rockets that met all parameters above can be used & pressure must not exceed 65 psi

#### 1<sup>st</sup> Rocket

#### 2<sup>nd</sup> Rocket

4. A B

10. A B

Which Rocket from above is this flight using?

5. \_\_\_ min \_\_\_ sec

11. \_\_\_ min \_\_\_ sec

Timer 1 5.e.-g. Flight Time (begins when the rocket separates from the launcher and stops when the parachute Payload system lands or contacts the ceiling. If parachute payload system does not separate from the rocket, timing stops when any part of the rocket touches the ground.

6. \_\_\_ min \_\_\_ sec

12. \_\_\_ min \_\_\_ sec

Timer 2

7. \_\_\_ min \_\_\_ sec

13. \_\_\_ min \_\_\_ sec

Timer 3

8. T F

14. T F

The parachute payload system separated from the rocket

9. T F

15. T F

Rocket and parachute payload system did not contact the ceiling

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