JetToy Competition

Event / Track Description & Scoring Guide
**JetToy Olympics - Track Descriptions & Scoring Guide**

**Distance**

**Objective:** Student design teams will construct a JetToy car that can travel as far as possible.

- **Track Specs:** The track will be 10m long x 3m wide
- **Teams must release JetToy behind the 0m mark**
- **JetToy must stay on track for attempts to be valid (if JetToy leaves the track, points are rewarded at point of exit)**
- **JetToy balloon must be inflated to an 8 inch diameter or less – Judge will check diameter before JetToy is released.**

**Scoring**

- Design teams get three attempts.
- Final score is based on the sum of the 3 attempts.
- Point total is awarded by judge determining the scoring box and adding the total cm travel in the point box.
- Measurements are taken from the furthest point of travel (i.e. most distant point), reference car front edge.

**Distance Track –**

![Distance Track Diagram]

The JetToy stopped 55cm beyond the 9m line, the point value of this trial is 9.55
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Weight

Objective: Student design teams will construct a JetToy car that can carry a specific amount of weight.

- Track Specs 10m long x 3m wide
- Teams must release JetToy behind the 0m mark
- JetToy must stay on track for attempt to be valid (if JetToy leaves the track, points are rewarded at point of exit)
- JetToy balloon must be inflated to an 8 inch diameter or less – Judge will check diameter before JetToy is released.
- Weights for the event will consist of 3 washers which are provided by Track Judges & taped in a cylindrical arrangement.

Scoring
- Design teams get three attempts.
- Final score is based on sum of the 3 attempts.
- Point total is awarded by judge determining the scoring box and adding the total cm in the Point Box.
- Measurements are taken from the furthest point of travel (i.e. most distant point), reference-car front edge.

Weight Track –

<table>
<thead>
<tr>
<th>0m</th>
<th>1m</th>
<th>2m</th>
<th>3m</th>
<th>4m</th>
<th>5m</th>
<th>6m</th>
<th>7m</th>
<th>8m</th>
<th>9m</th>
<th>10m</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 points</td>
<td>1 point</td>
<td>2 points</td>
<td>3 points</td>
<td>4 points</td>
<td>5 points</td>
<td>6 points</td>
<td>7 points</td>
<td>8 points</td>
<td>9 points</td>
<td>10 points</td>
</tr>
</tbody>
</table>

The JetToy stopped 66cm beyond the 5m line, the point value of this trial is 5.66
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Accuracy

**Objective:** Student design teams will construct a JetToy car that can travel a specific distance.

- Track Specs 10m long x 3m wide
- Teams must release JetToy behind the 0m mark
- JetToy must stay on track for attempt to be valid (if JetToy leaves the track, points are rewarded at point of exit)
- JetToy balloon must be inflated to **Max allowed** (8 inch) dia. or less by the team.

**Scoring**
- Design teams get three attempts.
- Final score is based on the sum the 3 attempts.
- Point awarded are by determining the scoring box and adding the total cm traveled in the Point Box.
- Measurements are taken from the furthest point of travel (i.e. most distant point), reference-car front edge; if vehicle lands in target square the points are determined by square where 50% + of vehicle stops - target square begins at 9.1 points; increases by a tenth of a point each 5 cm to center of target at 10 points; decreases by tenths beyond center.

### Accuracy Track

<table>
<thead>
<tr>
<th>0 points</th>
<th>1 point</th>
<th>3 points</th>
<th>5 points</th>
<th>7 points</th>
<th>8 points</th>
<th>7 points</th>
<th>5 points</th>
<th>3 points</th>
<th>1 point</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 points</td>
<td>2 points</td>
<td>4 points</td>
<td>6 points</td>
<td>8 points</td>
<td><strong>Target</strong></td>
<td>8 points</td>
<td>6 points</td>
<td>4 points</td>
<td>2 points</td>
</tr>
<tr>
<td>0 points</td>
<td>1 point</td>
<td>3 points</td>
<td>5 points</td>
<td>7 points</td>
<td>8 points</td>
<td>7 points</td>
<td>5 points</td>
<td>3 points</td>
<td>1 point</td>
</tr>
</tbody>
</table>

The JetToy stopped 68cm beyond the 3m line, the point value of this trial is 6.68
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**Speed**

**Objective:** Student design teams will construct a JetToy car that can travel as fast as possible over 3m distance.

- Track Specs 3m long x 3m wide
- Teams must release JetToy behind the 0m mark
- JetToy must stay on track for attempt to be valid.
- JetToy balloon must be inflated to an 8 inch diameter or less, track Judge will check diameter before Jet Toy is released.
- Track judge will time the teams’ attempts using a stopwatch / or by installing appropriate sensors.
  - Time starts when nozzle is released
  - Time stops when JetToy passes the 3m mark

**Scoring**

- Design teams will run 3 trails
- Final score is based on the Best of the 3 attempts (judges will round times (in Sec), in case of sensors the indicated speed will be recorded).
- Team with the best time gets 25 points and the next best gets 24 points….. and so on.

The JetToy crosses the 3m line with the best time/speed among all participating teams gets 25 points, second best team gets 24 & so on.
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Longest Travelling Time

**Objective:** Student design teams will construct a JetToy car that can travel for an extended period of time (longest travel time).

- Track Specs 10m long x 3m wide
- Teams must release JetToy behind the 0m mark
- JetToy must stay on track for attempt to be valid (or exit track past 10m mark)
- JetToy balloon must be inflated to an 8 inch diameter or less – Judge will check diameter before Jet Toy is released.
- Track judge will time the teams attempt using a stopwatch
  - Time starts when nozzle is released
  - Time stops when JetToy stops moving forward (JetToy cannot stop and start.)

**Scoring**

- Design teams get three attempts.
- Final score is based on the best of the 3 attempts (judges will round times to 1 significant figure).

<table>
<thead>
<tr>
<th>Time Track</th>
</tr>
</thead>
<tbody>
<tr>
<td>0m</td>
</tr>
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The JetToy stays on track and keeps moving for 32.34 sec., point value of the trial is 32.34