**Testing Gliders**

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**Flight Team Members**

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
3. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
4. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Step 1: Distance Trials**

|  |  |  |  |
| --- | --- | --- | --- |
| **Glider Name** | **Distance Glider Travelled (measured in metres)** | | |
| **1** | **2** | **3** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Step 2: Maneuverability Trials**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Maneuver** | **Right Aileron** | **Left Aileron** | **Rudder** | **Elevator** |
| **Rising Left** | Down | Up | Left | Up |
| **Rising Right** | Up | Down | Right | Up |
| **Diving Left** | Down | Up | Left | Down |
| **Diving Right** | Up | Down | Right | Down |
| **360˚ Roll** | Up | Down | Neutral | Neutral |

**Glider Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Points:** \_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Maneuver** | **Success of Maneuver (mark or** x**)** | | |
| **1** | **2** | **3** |
| **Rising Left** |  |  |  |
| **Rising Right** |  |  |  |
| **Diving Left** |  |  |  |
| **Diving Right** |  |  |  |
| **360˚ Roll** |  |  |  |

**Glider Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Points:** \_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Maneuver** | **Success of Maneuver (mark or** x**)** | | |
| **1** | **2** | **3** |
| **Rising Left** |  |  |  |
| **Rising Right** |  |  |  |
| **Diving Left** |  |  |  |
| **Diving Right** |  |  |  |
| **360˚ Roll** |  |  |  |

**Glider Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Points:** \_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Maneuver** | **Success of Maneuver (mark or** x**)** | | |
| **1** | **2** | **3** |
| **Rising Left** |  |  |  |
| **Rising Right** |  |  |  |
| **Diving Left** |  |  |  |
| **Diving Right** |  |  |  |
| **360˚ Roll** |  |  |  |

**Glider Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Points:** \_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Maneuver** | **Success of Maneuver (mark or** x**)** | | |
| **1** | **2** | **3** |
| **Rising Left** |  |  |  |
| **Rising Right** |  |  |  |
| **Diving Left** |  |  |  |
| **Diving Right** |  |  |  |
| **360˚ Roll** |  |  |  |

**Step 3: Modifying the Design**

**Glider Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Modification:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Reason for Modification:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **Distance Glider Travelled (measured in metres)** | | |
| **1** | **2** | **3** |
|  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Maneuver** | **Success of Maneuver (mark or** x**)** | | |
| **1** | **2** | **3** |
| **Rising Left** |  |  |  |
| **Rising Right** |  |  |  |
| **Diving Left** |  |  |  |
| **Diving Right** |  |  |  |
| **360˚ Roll** |  |  |  |

**Step 4: Debriefing**

1. Before modifications, which glider flew the furthest? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How far did it fly on average? \_\_\_\_\_\_\_\_ What was the furthest it flew? \_\_\_\_\_\_\_\_\_

1. Before modifications, which glider scored the most points on maneuvers? \_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How many points did it score? \_\_\_\_\_\_\_\_\_\_\_\_

1. After modifications, which glider flew the furthest? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How far did it fly on average? \_\_\_\_\_\_\_\_ What was the furthest it flew: \_\_\_\_\_\_\_\_\_

1. After modifications, which glider scored the most points on maneuvers? \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How many points did it score? \_\_\_\_\_\_\_\_\_\_\_\_

1. Did either of your modifications improve your distance and maneuverability results? Explain.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Enter your Flight Team’s final best scores below:**

|  |
| --- |
| **Distance Trials**  Glider Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Best Distance Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Average Distance Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |
| --- |
| **Maneuverability Trials**  Glider Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Best Point Score: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |