2. Glider making
There are a total of 12 child parts.

- Parts 1 to 7 make the Vertical stabilizer of the glider.
- Parts 8 and 9 form the main wing.
- Part 11 is used as a support between the vertical stabilizer and the main wing.
- Part 10 and 12 make the tail wing of the glider.
- 2 piece written as spare are to be used only if the team wishes to use them.

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**Diagram:**

- Tail Wing
- Rudder
- Aileron
- Main Wing
- Plane nose
- Horizontal Stabilizer
- Vertical stabilizer
<table>
<thead>
<tr>
<th>Sn</th>
<th>Material</th>
<th>Description</th>
<th>Image &amp; Qty per team</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main glider sheet for cut out</td>
<td>EEB approved</td>
<td>X 4 per team</td>
</tr>
<tr>
<td>2</td>
<td>Plain A4 sheet for special wings</td>
<td>EEB approved</td>
<td>X 1 per team</td>
</tr>
<tr>
<td>3</td>
<td>Scissors</td>
<td>Min 35mm (pivot point to cutting tip)</td>
<td>X 2 per team</td>
</tr>
<tr>
<td>4</td>
<td>Fevicol</td>
<td>20 grams</td>
<td>X 1 per team</td>
</tr>
<tr>
<td>5</td>
<td>Ruler</td>
<td>30cm, plastic</td>
<td>X 1 per team</td>
</tr>
<tr>
<td>6</td>
<td>Pen / Pencil</td>
<td>any ball point/Pencil</td>
<td>X 1 per team</td>
</tr>
<tr>
<td>7</td>
<td>Rule book</td>
<td>EEB approved</td>
<td>X 1 per team</td>
</tr>
<tr>
<td>8</td>
<td>Badges</td>
<td>Any spec</td>
<td>X 4 for team</td>
</tr>
<tr>
<td>9</td>
<td>Launcher</td>
<td>EEB approved</td>
<td>X 0 for team X 1 for track only</td>
</tr>
<tr>
<td>10</td>
<td>Rubber band</td>
<td>any (1 packet)</td>
<td>Pack of 20 for track only</td>
</tr>
<tr>
<td>11</td>
<td>Weight Washers</td>
<td>10 to 15 grams</td>
<td>X 0 for team X 10 For track only</td>
</tr>
<tr>
<td>12</td>
<td>binder clip</td>
<td>25mm</td>
<td>X 0 for team X 2 For track only</td>
</tr>
</tbody>
</table>

No extra material other than the glue is allowed | Item 1 to 8 are given to each team during toy making
Glider making – cut & fold

- Cut all the 12 sections along the solid line.
- Bend the section 2, 3, 4, 5 along the dotted line.
- Keep the ruler on top of the dotted line and bend the paper.
- [darken the dotted line using a pen/pencil for ease in bending].

Fold
Step 1: (Sub assembly A)
Paste all the pieces of vertical stabilizer as shown.

Step 2: (Sub assembly B)
- Flatten the base (highlighted) for main wing pasting
- Paste the support section 11 to create a good base for main wing pasting

Step 3: (Sub assembly C)
- Paste the tail wing ‘10’
- Over the support ‘12’

Step 4: (Sub assembly D)
- Paste 8 and 9 to form the main wing

View from below after pasting
**Step 5:**
Paste the main wing sub assembly D on top of the support.
Ensure center line matching.

**Step 6:**
Paste the tail wing sub assembly C on the glider.

**Finished Glider**
- You could suspend the glider over its wings using the scissors for checking the center of gravity (CG) that team wish to achieve.
- Use small piece of paper for adjustments.
- Ensure both the wings are parallel and well aligned
- Look for vertical stabilizer to be straight
Try to shape the wings slightly to create a small chamber.

Typical Wing Section:

- **Max chambering point**
- **Lift**
- **Wind pressure**
- **Drag**
- **Angle of attack**
- **Chord length**

Tail wing to be kept flat and straight.
Following parts must be used as it is:

1, 2, 3, 4, 5, 6, 7

Following parts can be modified/ redesigned as per the team’s idea:

8, 9, 10, 11, 12

So, these parts can be replaced with any different shape. However NO extra material other than what is given as a part of the kit is allowed.

It is mandatory to use a wing of at least 100mm width (end to end)

There are 2 spare cut outs for 6, 7. (can be used for CG adjustment)

FAQ:
A team has 4 glider sheets and 1 A4 plain sheet. Can we use all these material to make only 2 or 3 gliders in total. This will give us extra material

Answer: Yes this allowed. But NO separate extra material beyond what is provided already is allowed.