ASSEMBLED TOP PART OF AUTOMATA TOY
### MATERIALS

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>approx. 10 pcs. 8.5&quot; x 11&quot; size</td>
<td>1/8” Recycled Corrugated Cardboard</td>
</tr>
<tr>
<td>1</td>
<td>Disposable Chopstick <em>(or similar size wooden dowel)</em></td>
</tr>
<tr>
<td>4</td>
<td>Toothpick <em>(attach small flags to boat)</em></td>
</tr>
<tr>
<td>1</td>
<td>Hot Glue Gun &amp; Glue Gun Refill Sticks</td>
</tr>
<tr>
<td>1</td>
<td>PVA Glue <em>(or Adhesive Spray Mount)</em></td>
</tr>
<tr>
<td>1</td>
<td>Cellophane Tape <em>(at least 1 inch wide, 12&quot; long)</em></td>
</tr>
<tr>
<td>1</td>
<td>Xacto/ Knife</td>
</tr>
<tr>
<td>1</td>
<td>Metal Ruler</td>
</tr>
<tr>
<td>1</td>
<td>Cutting Mat</td>
</tr>
<tr>
<td>1</td>
<td>Printouts <em>(the following pages)</em></td>
</tr>
</tbody>
</table>

**Optional**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Black Acrylic Paint</td>
</tr>
<tr>
<td>1</td>
<td>Paint Brush</td>
</tr>
</tbody>
</table>
LEGENDS

- Cutline

- Middle line acts as aligning guide

- Remove this part

- Cut the “x”.
  Poke through with a blunt tip to form hole

- Stick cellophane tape on this area
PARTS TEMPLATE

IT'S A SMALL WORLD AUTOMATA TOY

Please print out the pages of parts template and glue them onto corrugated cardboards.
Glue page onto corrugated cardboard.
Glue page onto corrugated cardboard.
Glue page onto corrugated cardboard.
Glue page onto corrugated cardboard.
Glue page onto corrugated cardboard.
Glue page onto corrugated cardboard.

1. **Top**
   - Align to middle line

2. **Bottom**
   - Align to middle line
Glue page onto corrugated cardboard.

3. STRUCTURAL FRONT

4. STRUCTURAL BACK

5. REMOVABLE SIDE DOOR – PLUGS

[Diagram showing the alignment process]
Glue page onto corrugated cardboard.

cellophane tape up to this mark

GEAR 2

WASHER - INSIDE

WASHER - OUTSIDE
Glue page onto corrugated cardboard.
ASSEMBLY INSTRUCTIONS

IT’S A SMALL WORLD AUTOMATA TOY

Before Assembly

1
Paste pages from “Parts Template” onto corrugated cardboards

2
Cut out every part.
LETS BUILD
THE BASE

Apply Hot Glue
Part
Group
**1**

Glue all four parts of **18** and **26** into a rectangular short tube.

* A bold number like this **88** means it is a part number.

**2**

Glue **18** and **26** onto part **1** to form **Group A**
Glue 8, 9, 10 together.

Chopstick 2.75 inches

Chopstick 4 inches

Glue 5, 6, 7 together. 6 MUST be in the middle.

Glue chopsticks to 5, 6, 7.

points to front

points to back
3.2

Fold cellophane tape onto itself. Only non-adhesive sides are left on the outside.

Position 8, 9, 10 as shown in diagram.

Make sure width of folded tape is smaller than the U opening.

Loop folded cellophane tape (from above) around the bottom of the U bend.

Place another 1 inch width cellophane tape with adhesive side upwards.

Wrap cellophane tape around to secure loop onto part 8, 9, 10
Glue parts 11, 12, 13 together

Exposed side of top part parallel to shorter side of bottom part

Glue both parts 17 together

Repeat above steps with part 19, 20, 21 and 25
Align **Group B** to middle hole of **Group A**, longest side parallel to each other.

Insert 14, 15, 16 on shorter end of chopstick, align to front hole on **Group A**. Glue discs together. Glue should not touch chopstick.

Insert 22, 23, 24 on longer end of chopstick, align to back hole on **Group A**. Glue discs together. Glue should not touch chopstick.
Confirmed all 3 gears **Group B, Group E, Group F** are aligned to top holes. Glue front and back discs to chopstick.

Insert 11 onto shorter end of chopstick.
DO NOT GLUE yet.

Insert 12 onto longer end of chopstick.
DO NOT GLUE yet.
Align 1, 2, 3, 4’s middle line.

Glue 3, 4 to front and back edges of Group A.

3, 4 must be UNDERNEATH Group A.

Confirmed 11 is flushed against inside wall.
Confirmed 12 is flushed against inside wall.

Glue 11, 12 to chopstick on the side that faces inside.
DO NOT glue 11, 12 to interior walls.
This step secures the positioning of each gear to each aligned hole above.
Position **28** against one side of **Group G**, with art facing outwards.

Trace the inside corners with a pencil or pen.

Glue **5** together using three small pieces to create a stack. Repeat until you have four stacks.

Glue each group of **5** onto **28**, against the lines we traced from the step above.

**Group H** should be able to secure on the side. This allows gear maintenance to occur in the future.
Glue 27 to the other side of **Group G**

Base is basically done!

Dress up this base with any desired design.

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Poke a hole through 13.  
Glue 13 to back of front cap.

Poke a hole through 14.  
Glue 14 to back of end cap.
Attach moving parts and desired artwork to complete automata toy.
Thank you for following along!