



## Spider Web Slinger Stencil

### Materials Used:

Cardboard, 8.5 x 11 paper, plastic washer, 6mm magnets, 1" magnets, 2" spring, 2.25" dowel, tape, super glue, jumbo popsicle sticks, baking soda, string, exacto knife.

1. Transfer pattern to cardboard and cut out pieces.
2. **Barrel:** Cut out pattern piece for the barrel. (Piece 3)
3. Roll the paper around your spring making sure the spring slides through the barrel. Secure with super-glue. Coat outside in super glue and baking soda to harden. Do this 3-4 times to harden the barrel.
4. Glue plastic  $\frac{1}{4}$  washer to back of hardened barrel and harden with super glue and baking soda.
5. Wrap piece 2 around the barrel and glue the barrel to piece 2.
6. **Projectile:** Take a 2.25" long (.25") dowel and glue your magnet to one end. Wrap a piece of tape around the magnet and dowel and harden with a layer of super glue and baking soda.
7. Slide the 2" spring on the dowel and glue the spring to the tape.
8. Glue another magnet to the bottom of the dowel. Projectile complete.
9. Curl piece 7 and glue around completed barrel.
10. Curl the outer portions of piece 1 leaving the middle flat to glue down other pieces.
11. Glue complete piece from step 9 to the middle of piece 1.
12. Glue piece 6 to the back of the piece from step 9 to complete this portion of the shooter.
13. **Trigger:** Cut a jumbo popsicle stick to match pieces from the pattern (Pieces 4,5,13).
14. Glue the corresponding cardboard pieces (Pieces 8,9,13) to the wooden pieces.
15. Transfer the holes from the cardboard pieces to the wooden pieces.
16. Tape the wood/cardboard piece 13 to the Wood(4)/Cardboard(8) piece to make a hinge.
17. Make a small "I-Beam" from the jumbo popsicle stick to place in the hole for piece 4/8.
18. Place piece 4/8 through piece 5/9 and glue the small hinge piece 13 to piece 5/9.
19. Trace your larger magnet shape to piece 4/8 and cut away the cardboard. Glue the magnet to the popsicle stick.
20. Place a second magnet on the first and transfer the position to piece 5/9.
21. Cut away the cardboard and glue magnet to the popsicle stick paying attention to the polarity of the magnet.
22. Add piece 10 to the end of the trigger.
23. **Shooter Body:** Glue completed trigger to bottom of Piece 1 making sure it is positioned in front of the barrel with the "I-beam" acting as the pin to hold the projectile.
24. Cut out the pattern for the box to hold the string acting as the web (Pieces 11/12).
25. Score the dotted lines, fold into the top and sides of the box. Glue piece 12 to the bottom of the folded piece 11 to complete the box.
26. Attach to the shooter using small magnets.
27. Your Spider Web Slinger is ready for action! Show us your slingers by tagging @impossiblescience on social.

**3**

**4**

**2**

**1**

**5**

**6**



