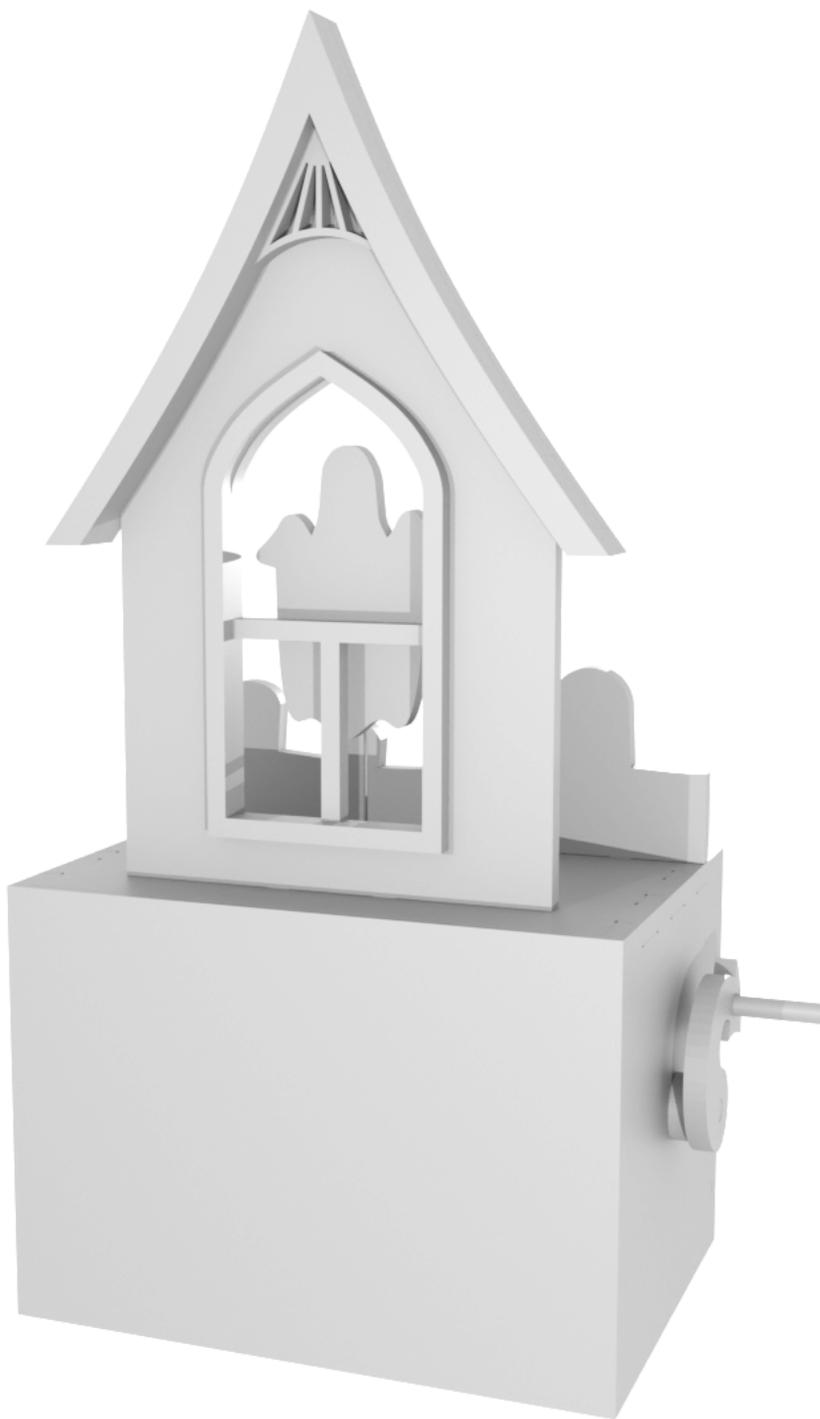




Ghost in the Attic Automaton



Get the latest assembly video & instructions

I don't like reading instructions. I put together a step-by-step 15 minute video on how to assemble the Ghost in the Attic automaton kit.

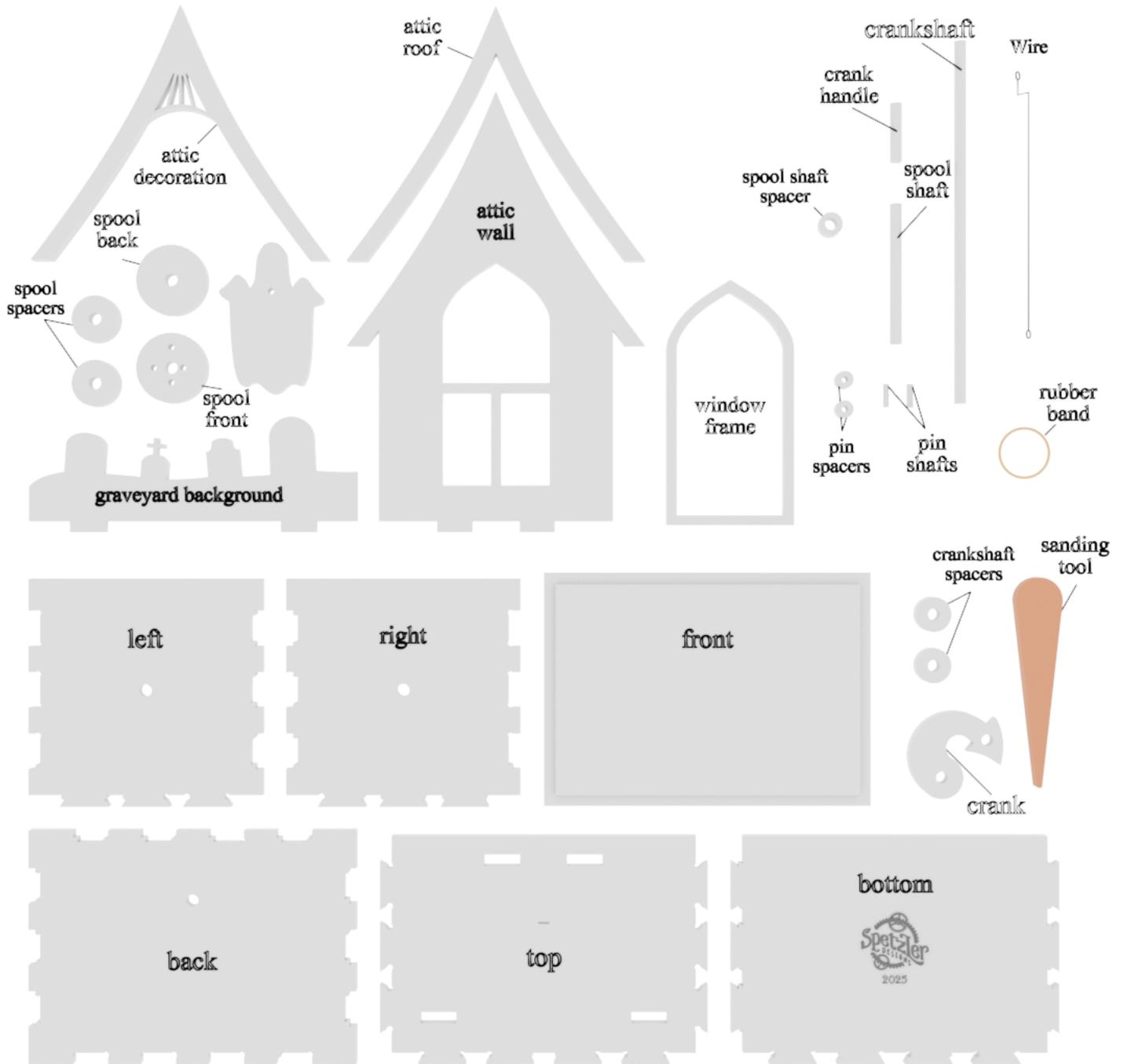
If you prefer to just follow along with a video tutorial, you can use the QR code below to go straight to the post on my website where you will find the latest version of these instructions, a video tutorial and helpful tips and tricks on how to troubleshoot many common problems.

You can also see how other automata kit builders have finished (and added other surprises) to their kits to get your creative juices flowing.



<https://spetzlerdesigns.com/ghost-in-the-attic-automaton>

Parts Layout



Parts List

- Box assembly
 - 2x Side pieces
 - Back piece
 - Front piece
 - Bottom piece
 - Top piece
- Crank assembly
 - 7³/₄ inch crankshaft (¹/₄ inch dowel)
 - Crank (arrow shaped)
 - 2x Crankshaft spacers (³/₄ inch diameter ring)
 - 1¹/₄ inch crank handle (¹/₄ inch dowel)
- Spool assembly
 - Spool back
 - Spool spacers (x2)
 - Spool front (with holes)
 - 3 inch spool shaft (¹/₄ inch dowel)
 - Spool shaft spacer (¹/₂ inch diameter ring)
- Attic assembly
 - Attic wall
 - window frame
 - Attic roof
 - Attic decoration
- Wire pins
 - 2x ¹/₂ inch pin shafts (¹/₈ inch dowel)
 - 2x pin spacers (³/₁₆ inch diameter ring)
- 6 inches of .039 inch wire (with loops)
- Ghost
- Rubber band
- Graveyard background

Also included in kit

- Sanding stick
- Glue
- This instruction sheet

Assembly Instructions

Attic

- glue the attic decoration piece to the attic wall so it's aligned with the top edge
- Glue the window frame to the attic wall
- Glue the attic roof to the attic decoration piece (stacked) also aligned with the top edge



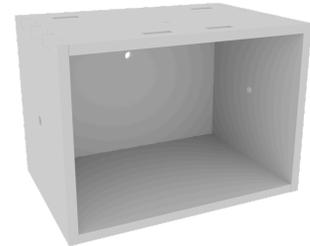
Spool assembly (part 1)

- Using the spool shaft as an alignment tool, stack and glue together the spool parts. The two 1 inch pieces belong in the center between the larger 1½ inch pieces. Make sure that the 4 holes in the end piece are facing out (away from the center of the spool). Remove the assembly from the spool shaft and set aside for the glue to set



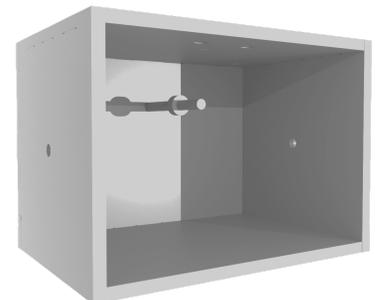
Box

- Attach the side panels of the box to the panel labeled "back"
Note: it is important that the labels are on the outside of the box and the flat sides of the box pieces are all on the same side of the box (the front). The left and right pieces are interchangeable, but the labels should be on the outside of the box
- Attach the top and bottom pieces
- Set aside the front piece to be attached once the automaton is finished and ready to paint



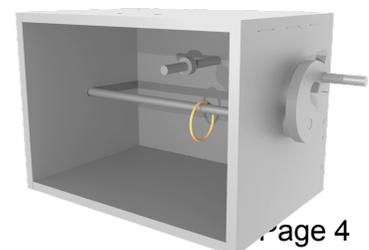
Spool shaft assembly

- Put the spool shaft spacer on to the spool shaft and push it on to about half the way down the shaft (don't glue the spacer because you will need to adjust it later)
- Glue the spool shaft in the hole in the back box panel. Make sure it is fully inserted (from the inside) and the end of the shaft is flush with the back panel



Crank assembly

- Glue one of the crankshaft spacers and the arrow shaped crank on the crankshaft. The crankshaft goes in the center hole of the crank (the hole at the base of the arrow).
Note: Make sure that the crank points in a clockwise direction (unless you want the crank on the left side of the box, then it's



counter-clockwise). The crankshaft spacer goes between the box and the crank to keep the crank from rubbing on the box.

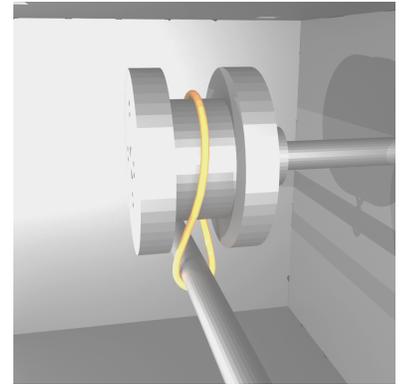
- Glue the crank handle into the hole located in the crank arrow head.
- Insert the crankshaft through the right side, but add the rubber band to the crankshaft before putting it through the opposite side of the box.
- Put the remaining crankshaft spacer on the end of the fully inserted crankshaft to keep it from pulling back into the box.

Note: don't glue the end crankshaft spacer. You will need to be able to remove the shaft to replace the rubber band if it ever breaks.

Spool assembly (part 2)

- Take the spool, and with the holes facing to the left side of the box, put it through the rubber band attached to the crankshaft. Once it's through, rotate the spool so that the holes are facing the front (keeping the rubber band wrapped around the center of the spool). Put the spool on the spool shaft.
- Adjust the spool shaft spacer so that the spool end stays flush with the spool shaft end when it is rotated.

Note: you don't want the spool shaft end protruding or the wire that goes to the ghost will catch on it. You also don't want the spool shaft too far inside the spool or the wire will rub on the side of the spool because the spool will not be aligned with the hole in the top of the box.

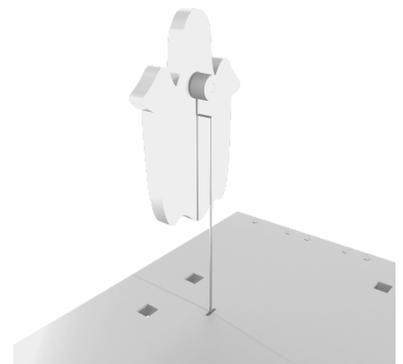
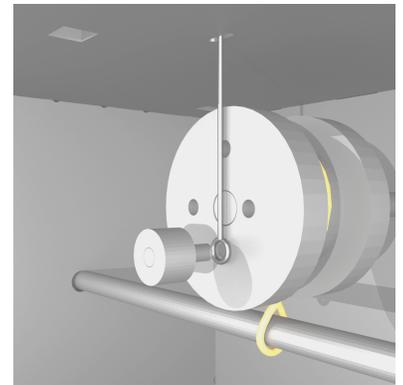


Ghost assembly

- Make 2 "push pins" (aka pins) with the supplied 1/2 inch long dowels and small spacers. Put a tiny amount of glue on the pins and fully insert them into the spacers until they are flush with the side.
- Put the straight end of the wire through the small slot in the top of the box.
- With the bend in the top of the wire facing the front of the box, put one of the pins through the wire and insert it into one of the holes in the spool end. Don't pin the wire tightly against the spool there should be just enough room for the wire to rotate easily on the pin without friction against the spool.

Note: the holes closer to the center of the spool will make the ghost move in a small circular pattern while the holes farthest from the center will make the ghost move in a larger circular pattern. Don't glue the pin into the spool so you can change this setting to your own preference.

- The ghost is attached to the top of the wire using the remaining pin. As with the pin in the spool, the ghost should be able to rotate on the wire, so don't push the pin tightly against the back of the ghost so it can rotate easily.



Final assembly

- Attach the attic assembly to the base by pushing the 2 tabs on the bottom of the attic assembly into the 2 matching holes on the top of the box.

Note: you will need to round the tabs on the bottom of the attic assembly slightly to get them into the holes in the box. They are supposed to be a firm fit, but not so tight that they can't be inserted. Sand as needed.

- Attach the graveyard scene background in the same manner as the attic assembly. The 2 tabs go into the matching holes in the top of the box.

Note: again, some sanding will be required to round the corners of the tabs on the graveyard background to make it fit. It's meant to be firm, but not overly tight.

- The front of the box is optional and can be added to hide the mechanism that makes the ghost fly. I tend to add it and paint it to match the rest of the base, but I don't glue it in place so that I can service the automaton and so that people can look at how the mechanism works if they want.



Decorating

I painted mine with acrylic paint and put some googly eyes on the ghost to finish it off. You can do whatever you want to make your automaton unique! Don't forget that you can also decorate the inside of the box. One person painted "Boo!" on the inside of the box so that when anyone opens the box they get an extra surprise.

You're Finished!

I really hope you enjoyed assembling the Ghost in the Attic. Take some time to pat yourself on the back and then show it off to everyone!

I have quite a few other kits of varying levels of difficulty. If you enjoyed making this one, I would suggest trying my other Halloween themed "Gone Batty" automaton. It's a little more difficult to assemble and introduces the cam & cam follower that is very commonly used in automata to make movements that are less predictable.

There are more kits, tips, tricks, samples and ideas for modifying your new automaton to add more surprises to your automaton on my website SpetzlerDesigns.com.

-Gary