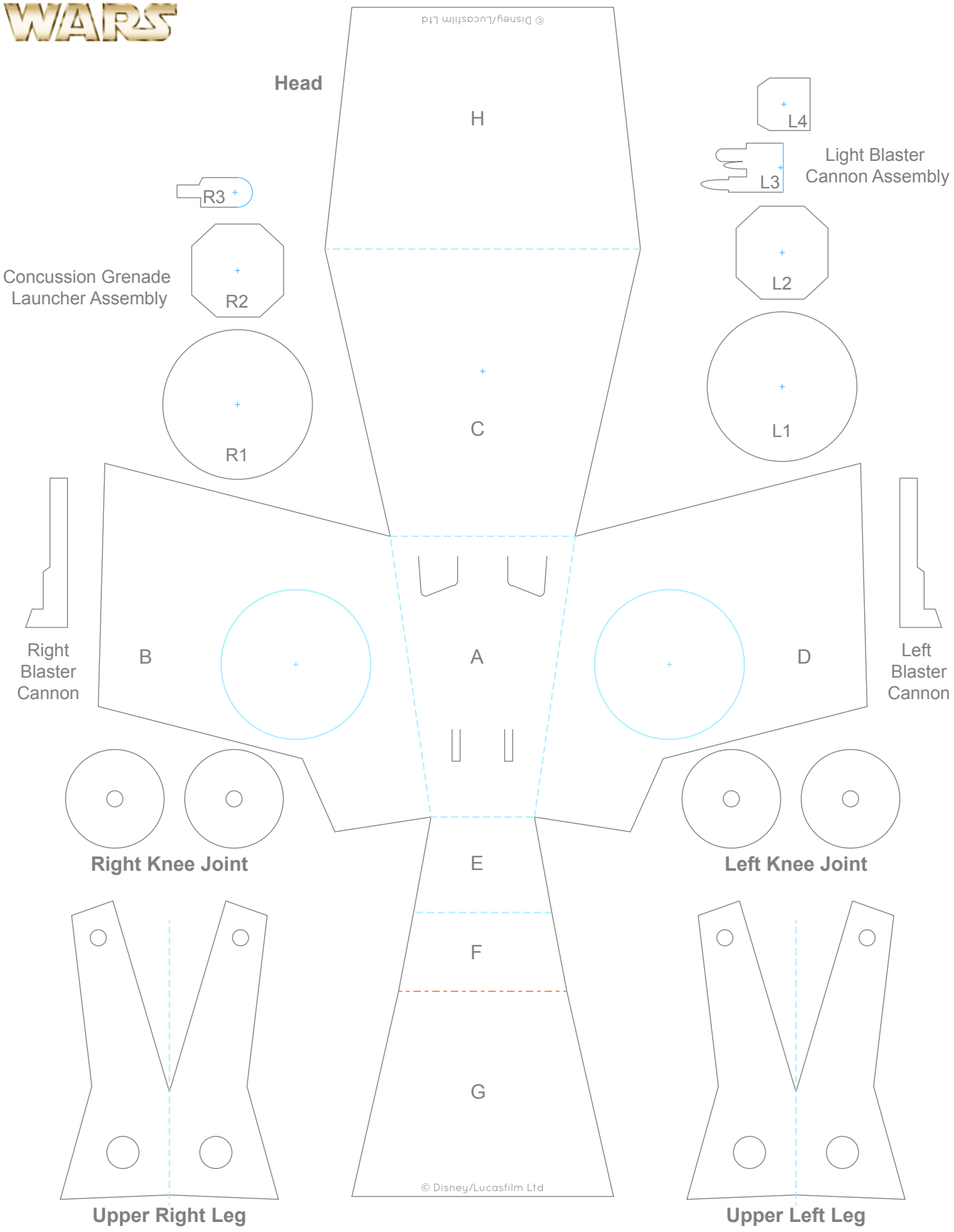
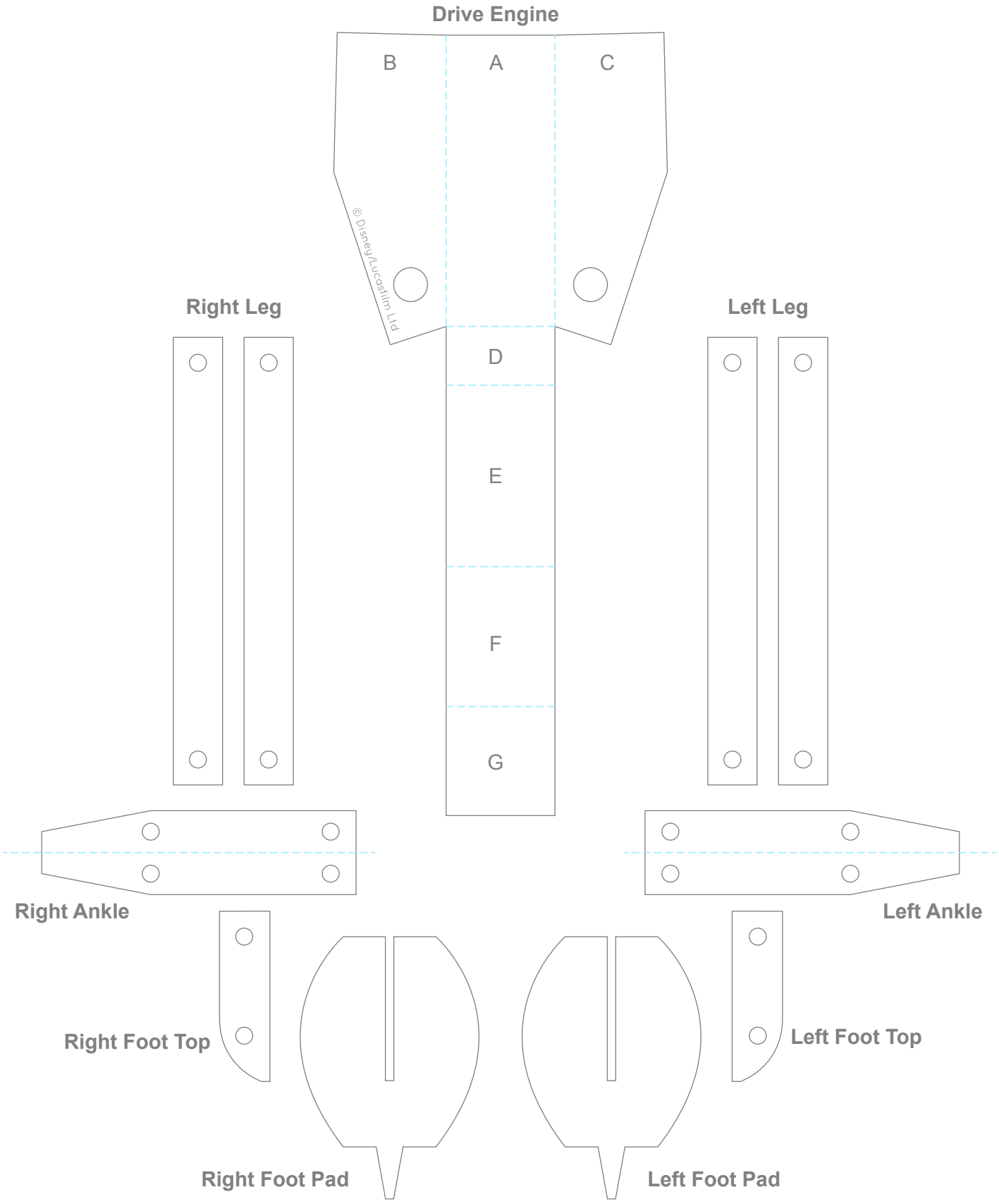
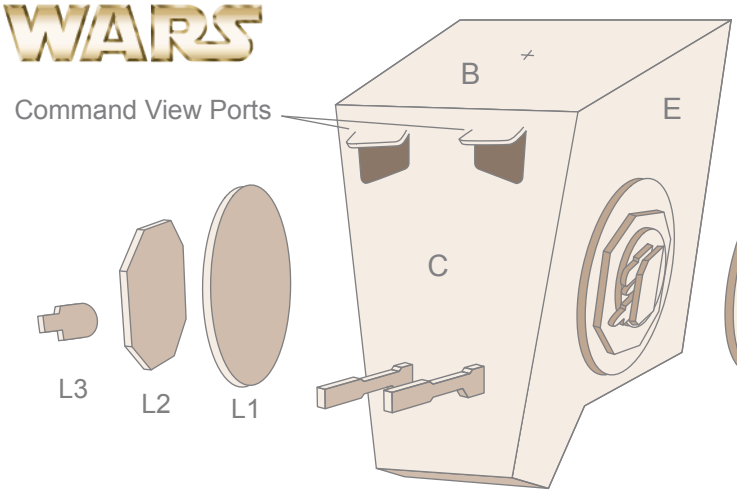
AT-ST Marionette Template

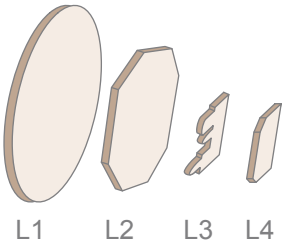


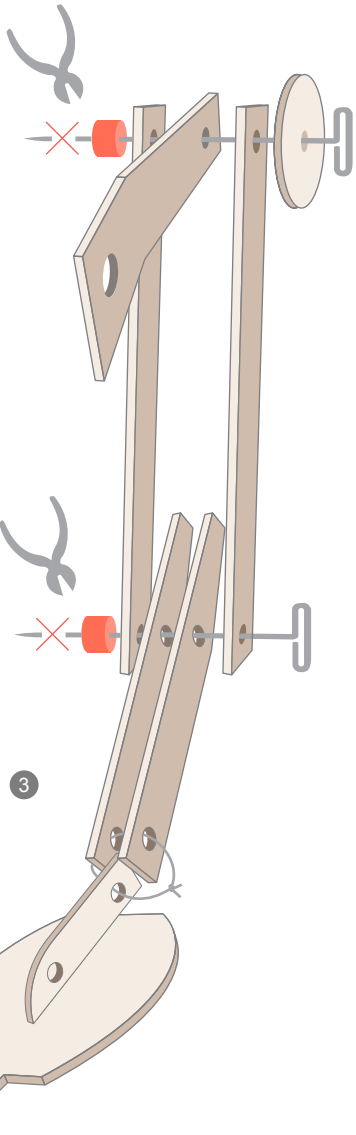


AT-ST Marionette Template

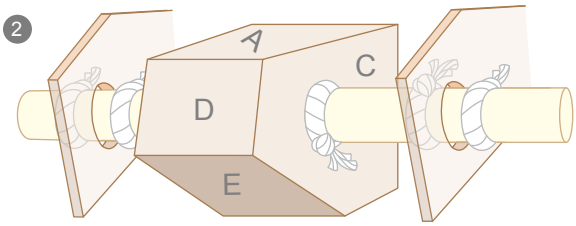


1



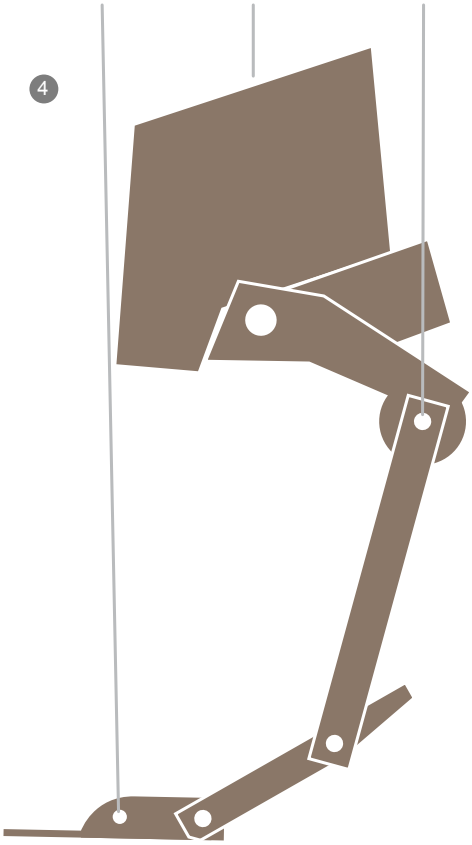


2

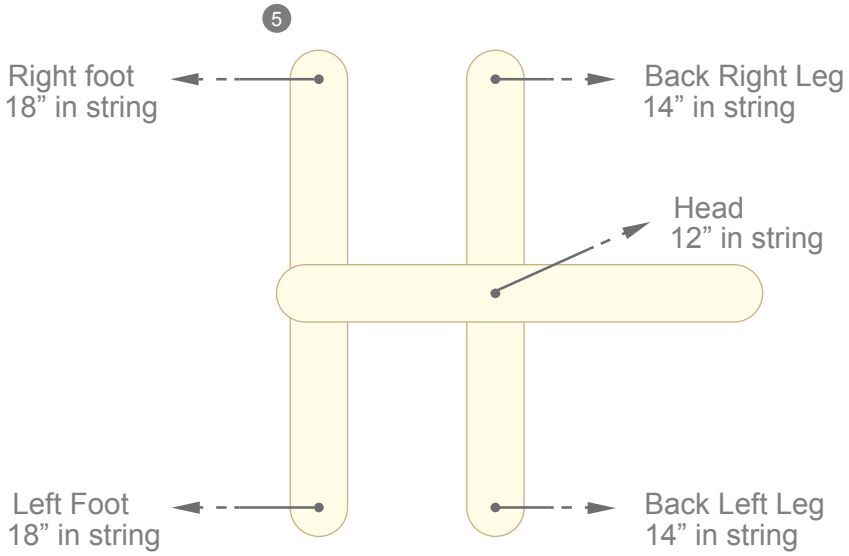


3

4



5



Materials Needed:
PDF template
11" x 17" inch piece of card board (alternatively you may use scraps of cardboard that have the same thickness)
craft knife with extra blades
straightedge or ruler with cutting rail
self-healing cutting mat
hot melt glue gun and extra glue sticks
1 paperclip
kite string (alternatively you can use strong thread or fishing line, but these thinner options can be hard to untangle if twisted)
4 inch long 1/8th inch dowel (make sure the width is equal to the hole you cut out in the "Drive Engine" see diagram 2 on page 3).
4 T-pins
small wire cutters
2 small cylinder eraser refills (You can actually pull the erasers out of #2 pencils you have lying around and they work fine
3 large tongue depressors
large sewing needle or awl
scotch tape
ball point pen

Optional Materials:
transfer paper or carbon paper1/8" inch hole punch
gray or silver spray paint & newspaper or groundcloth

Warning: Cutting, hot-melt glueing, and spray painting is intended for adults only. Take great caution when cutting using a cutting matt and a cutting rail ruler. Keep these and all other materials out of the reach of children at all times and never leave them unattended for any reason. If for any reason you do not feel comfortable using these materials, please do not attempt to make this craft. We want you to have fun, but at all times safety must be the #1 priority.

Instructions:
1. If you are using transfer paper, place it between pages 1 and 2 and the cardboard and trace over each line with a ball point pen using a straight edge or a ruler to transfer all solid and dotted lined including circles and center points (these look like blue plus {+} signs). Make sure to so this on a hard surface like a table. If you decide to not use transfer paper, you can cut out each template and trace them taking care to add the internal details as closely as possible including dotted lines, circles, etc.

2. Set the cardboard on your self-healing cutting mat and using a new blade, carefully cut out each element along the gray lines using your craft knife. For the circles you make carefully use the craft knife to cut, but I recommend using a hole punch. Tip: To avoid tearing the cardboard switch out the craft knife blade s often as they dull quickly.

3. On the pieces marked "Head" and "Drive Engine" Cut along the blue dotted lines very carefully so that you go through the top layer of card board, but not the second layer. This "scoring" will allow you to fold the pieces away from you so you can glue the solid pieces as shown in the photo and in diagrams 1 and 2 on page 3. The one exception to this is the orange dotted line you see on the "Head" piece. This line needs to fold the opposite direction so you must flip the whole piece over and cut through the back layer of cardboard so as not to cut all the way through the front. If at any time you accidentally cut all the way through the line, hope is not lost! You just need to glue the piece in place where it would have been had it stayed attached.

4. Carefully use a modest amount of hot-melt glue along the seams to create the "Drive Engine" piece. Start by glueing parts B and C to part D. Next glue part E to parts B and C. Do the same for parts F and G until you have a solid piece.

5. Before glueing the "Head" piece together, use the large sewing needle or awl to punch a hole through the top of the head at the center of the small cross-hair {+}. Feed your string through and tie it to the paperclip so the paperclip is on the

Instructions (contd.)

inside of the head piece when you glue it closed diagram 5 says you need 12" when finished so use a bit more string than that--see step 13). You may want to glue the paperclip and knot to the backside of panel C on the "Head" piece to keep it from becoming loose once you've glued the "Head" shut. Also prior to glueing the "Head" piece shut you can fold out the Command Viewports and place the right and left Blaster Cannons in their place as seen in diagram 1 on page 3.

6. Now carefully use a modest amount of hot-melt glue along the seams to create the "Head" piece. Glue the edge of facet B to E and then D to E working your way around each side until the head resembles diagram 1 on page 3. Add the Concussion Grenade Launcher Assembly as well as the Light Blaster Cannon Assembly as pictured in the exploded view in diagram 1 on page 3. Note the diagram shows both the exploded view of the left assembly and the final view. Keep the pieces as centered as possible and place where indicated on panels B & D on the "Head" piece on page 1.

7. Center the top side of the "Drive Engine" labeled 'A' along the bottom side of the "Head" piece labeled 'G' and affix with hot-melt glue. In the side view silhouette shown in diagram 4 on page 3 you can see a side view that shows how the back of the "Drive Engine" sticks out a bit.

8. If you do not want to spray paint your model gray or silver, skip to step 9. Lay out some newspaper or a drop cloth outside in a well ventilated area, shake well, and lightly spray all the cardboard pieces you have cut out. Allow for drying time the paint can's instructions and when dry turn the parts over and reapply paint lightly until all sides are well covered and even. Once completely dry go on to step 9.

9. Place the dowel through the larger hole on the left upper leg then through the "Drive Engine" and then through the larger hole on the right upper leg as seen in the diagram 2 on page 3. Center the dowel and then tie string right up against the "Drive Engine" to keep the dowel from sliding out (see diagram 2). Then space the legs anywhere between 1/2" to 3/4" inches from the "Drive Engine" and tie string on both sides of the upper leg taking care to leave enough space so the legs move freely up and down and side to side a bit without being too wobbly.

10. Next assemble the legs as shown on diagram 3 on page 3. Starting from the outside facing inside pass the T-pin through the circular Knee Joint, through the outside leg piece, through the smaller hole of the upper leg, and then through the inside leg and stop the piece using the flat half of a pencil eraser as shown in the diagram. Then carefully cut the end of the T-pin leaving about 1/8" of an inch exposed. Now do the same for the top of the ankle piece following the order shown in diagram 3 where it starts with the leg, then the two ankle pieces, and then the other leg piece with the same T-pin and eraser procedure as before.

11. Wedge the Right Foot Top piece into the Right Foot Pad slot as shown in diagram 3 and glue it in place. Repeat the steps for the Left Foot Top and Pad as well. Then tie the ankle somewhat loosely to the hole on the Foot Top closest to the heel and repeat for the other foot.

12. Glue 3 large tongue depressors as shown in diagram 5 on page 3.

13. Refer to the string size and placement in diagram 5 on page 3 and cut your string a bit longer than you need. Tie the 18" strings to the toe facing holes on the two Foot Tops. Tie the 14"in strings around the 'T' end of the T-pin on the outside of the two upper legs. Take the loose end that is attached to the head and hang it approximately 12" inches from the point indicated on diagram 5 and tape it there. Once taped you will be able to tie the string off in a knot and remove the tape. Repeat the string tying by referring to diagram 4. Try to tie the strings such that the marionette rests as you see it in the side silhouette view in diagram 4 on page 3.

14. You're finished! Now show off your skills by rocking the marionette control left and right and back and forth to make your puppet march.