1. Base Structure  
   a. Cut out the base structure of the course as shown in the drawing on page 25.  

   NOTE: Checkpoint 1, 3, and 4 uses the base structure as the course (not a separate piece by itself). Therefore, during final assembly, the area which has designated for Checkpoint 1, 3, and 4 in the drawings must be painted blue on the base structure as shown in step 7. – Painting Initial.

2. Checkpoint 2  
   a. From a piece of .25” plywood, cut out pieces shown in drawings on pages 3-4.  
      i. All remaining pieces will be cut out of .25” plywood unless another material is indicated.  
   b. Assemble using glue as shown in drawing on page 2.  
   c. Set aside for final assembly.

3. Checkpoint 3  
   a. From a piece of .50” MCF, cut out and build walls as shown on pages 7-10.  
   b. Cut dowel as shown on page 11.  
   c. Set aside for final assembly.
4. **Checkpoint 4**  
   a. Cut out parts as shown in drawings on page 13 from the 2”x3” (1.5”x2.5” actual) SPF stud.  
   b. Set aside for final painting.

5. **Checkpoint 5**  
   a. Cut out parts for checkpoint 5A as shown in drawings on pages 15-16.  
   b. Assemble 5A using glue as shown in drawing on page 17.  
   c. Cut out parts for checkpoint 5B as shown in drawings on page 19.  
   d. Assemble 5B using glue as shown in drawing on page 18.  
   e. Glue 5B inside of 5A as shown in drawing on page 14.  
   f. Cut out an 8” x 6” bubble section of the plastic roller tray and glue it to the flat top of 5B as shown in drawing on page 18.  
   i. It should be oriented so that there is a .25” gap on the left and right of the track.  
   g. Set aside for final assembly.

6. **Checkpoint 6**  
   a. Cut out parts as shown in drawings on pages 21-23.  
   i. Parts 6A and 6C cut out from .50” MDF.  
   b. Assemble track base using glue as shown in drawings on page 24.  
   c. Assemble the entire checkpoint using glue as shown in drawing on page 20  
   i. Item 6B is a loose item and does not get glued.  
   d. Set aside for final assembly.
7. Painting Initial  
   a. After the entire course has been built and all parts dry, paint the course with the following colors.  
      i. Track Area = Deep Blue  
      ii. Empty Base = White  
      iii. Blocks/Walls = Black  
      iv. Piece 6B will be Deep blue

8. Final Assembly  
   a. Take each piece that you set aside and glue it onto the base structure as shown in drawing on page 25.  
      i. Blocks 4A, 4B(2pcs), 4C(2pcs), and 6B do not get glued to base.  
   b. When attaching walls on the outside of checkpoint 3, we glued the piece to the side, held it perpendicular to the base using another wall piece for alignment reference, and put a nail through the wall into the base about every 2 inches. The purpose of adding the nails was to let the glue cure itself.  
   c. After the walls are attached and dry, we used caulking to fill the gap between walls. This added a little more strength to the walls and made it visually appealing.  
   d. The loose blocks for checkpoints 4 and 6 need to have a marker border around them so that you know where they belong. We used tape lines to mark off dimensions for where the blocks belonged from each reference point.

9. Painting Final  
   a. After the course has been assembled completely, the track line, empty base, and checkpoint divide lines can be painted.  
      i. Track Line = White  
         1. Track lines are painted on from the beginning of the course until the end of the ramp on checkpoint 2 and all the way through checkpoint 5A and 5B.

10. Completed Course