

RUBE GOLDBERG MACHINE ASSEMBLY INSTRUCTIONS

FRAME:

LEG SUBASSEMBLY:

1. Refer to drawing FA_1
2. Align the 'Leg Support' with the 'Table Leg' as shown in the drawing.
3. Use a 2x4 to align the top of the 'Leg Support' with the top of the 'Table Leg'
4. Insert two wood screws, evenly spaced, through the 'Table Leg' into the 'Leg Support'

FRONT SUBASSEMBLY:

1. Refer to drawing FA_2
2. Attach the 3 'Plywood Supports' to the 'Front Beam.' One support should be attached flush to each end of the beam. The third support should be directly in the middle of the 'Front Beam.' Two wood screws should be drilled into the 'Plywood Supports' from the back side of the 'Front Beam.' The bottom screw needs to be at least 1.5" from the bottom of the 'Front Beam.'
3. Attach the 'Flat Support' to the 'Front Beam' as shown in the drawing. Drill four wood screws into the 'Flat Support' from the front of the 'Front Beam.' Two of the screws should be placed between the far left 'Plywood Support' and the middle 'Plywood Support.' The other two screws should be placed between the middle 'Plywood Support' and the far right 'Plywood Support.' Be sure to avoid drilling the screws into the recesses for the 'Interior Supports.'
4. Attach the 'Plywood Display 1' to the 'Plywood Supports.' Two wood screws should be drilled into each 'Plywood Support' through the top of the 'Plywood Display.'
5. Attach each 'Leg Subassembly' to the bottom of the 'Flat Support' as shown in the drawing. The 'Leg Support' should protrude to the inside of the assembly. The outside of the 'Leg Subassembly' should be 2 inches from the end of the 'Flat Support.' Each 'Leg Subassembly' should be attached using a hinge so that it will fold underneath the 'Flat Support.'

LEFT SUBASSEMBLY:

1. Refer to drawing FA_3
2. Attach the 3 'Plywood Supports' to the 'Left Beam' as described above. The only difference is that the 'Plywood Support' nearest the 'Front Display' should be flush with the inside of the cutout in the 'Left Beam,' not the end of the beam.
3. Attach the 'Flat Support Left' to the 'Left Beam.' Again, use the same process described above.
4. Attach the 'Plywood Display 2' to the 'Plywood Supports' using the same process described above.

5. Attach the 'Leg Lock' to the 'Flat Support.' The long edge of the 'Leg Lock' should be flush with the inside of the 'Flat Support.' The short edge should be 7 inches from the end of the 'Flat Support.' Attach using two wood screws from the top of the 'Flat Support' into the 'Leg Lock.' The screws should be as close to the edges of the 'Leg Lock' as they can get without risking splitting the wood.
6. Attach the 'Leg Subassembly' to the bottom of the 'Flat Support Left.' The 'Leg Support' should protrude to the inside of the assembly. The outside of the 'Leg Subassembly' should be 2 inches from the end of the 'Left Beam.' The 'Leg Subassembly' should be attached to the 'Flat Support Left' using a hinge so that it will fold underneath the 'Flat Support Left.'

RIGHT SUBASSEMBLY:

1. The Right Subassembly should simply be a mirror image of the Left Subassembly

BACK SUBASSEMBLY:

1. Refer to drawing FA_4
2. Attach the 'Back Beam' to the 'Flat Support Back.' The ends of the 'Flat Support Back' should be flush with the insides of the cut-out segments in the 'Back Beam.' The two pieces should be attached by drilling wood screws from the back of the 'Back Beam' into the 'Flat Support Back.' Three screws can be used. One should be to the left of the recesses in the 'Flat Support Back,' another should be in the middle of the recesses, and the third should be to the right of the recesses.
3. Attach the 'Leg Lock' to the 'Flat Support Back.' The long edge of the 'Leg Lock' should be flush with the inside of the 'Flat Support Back.' The short edge should be 7 inches from the end of the 'Flat Support Back.' Attach using two wood screws from the top of the 'Flat Support Back' into the 'Leg Lock.' The screws should be as close to the edges of the 'Leg Lock' as they can get without risking splitting the wood.

FRAME ASSEMBLY:

1. Refer to drawing FA_5
2. 4 Carriage bolts should be used to assemble the frame.
3. First the legs should be unfolded on the Front Subassembly.
4. The Left and Right Subassemblies should then be connected to the Front Subassembly with a carriage bolt through the top of the vertical beam in the Left and Right subassemblies. Make sure that the table legs are on the outside of the 'Leg Locks.'
5. The legs on the Left and Right Subassemblies should then be unfolded, and the Back Subassembly should be connected to the Left and Right Subassemblies using carriage bolts. Again, make sure the legs are on the outside of the 'Leg Locks.'
6. Place the 'Interior Supports' into the recesses on the Front and Back Subassemblies.

SUBSYSTEM:

1. Refer to drawing SA_1
2. ALL JOINTS SHOULD BE CONNECTED USING WOOD GLUE PLUS SCREWS
3. The 'Plywood Base' is the primary point of assembly for the subsystem.
4. First the 'Vertical Support' should be connected to the front right corner of the 'Plywood Base.' Glue should be applied to the bottom of the 'Vertical Support' and a wood screw should be drilled in from the bottom of the 'Plywood Base' into the 'Vertical Support.' Make sure the edges of the 'Vertical Support' are flush with the edges of the 'Plywood Base.'
5. The same process should be used to then connect the 'Vertical Support Short' in the other 3 corners of the 'Plywood Base.'
6. Next the 'Horizontal Support Long' pieces should be connected.
7. Start by connecting one 'Horizontal Support Long' piece to the inside of the 'Vertical Support.' Make sure all edges are flush. Attach with wood glue and a screw from the front of the 'Vertical Support' into the end of the 'Horizontal Support Long.' Connect the other end to the top of the 'Vertical Support Short' by applying wood glue to the top of the 'Vertical Support Short.'
8. Next connect the 'Horizontal Support Long' along the back of the subsystem. This should be connected with wood glue on top of the 'Vertical Support Short' in the back corner and wood glue between the end of the 'Horizontal Support Short' along the back and the 'Horizontal Support Short' that was just installed.
9. Next the final 'Horizontal Support Long' should be attached along the left edge of the subsystem. It should be attached with wood glue between the top of the 'Vertical Support Short' and the 'Horizontal Support Long' and also with a wood screw through the top of the 'Horizontal Support Long' into the 'Vertical Support Short.' Wood glue should also be applied between pieces at the other corner.
10. Final corner braces should be installed in the locations shown on the drawing. Two wood screws should be installed into the vertical and horizontal supports.

FULL SYSTEM:

1. Place the subsystems on the frame. Each subsystem should have the empty edge facing outward. The ones in the front corners should have the empty edge facing towards the front.
2. Next the sheets of Lexan should be installed. These will be predrilled with holes for bolts that will be protruding from the vertical supports in the subsystems. The Lexan should be placed onto these bolts and the nuts should be tightened to a snug fit. One Lexan sheet will be placed along each side of the frame and three will be installed along the top with the long edge parallel to the front of the frame.