Sub-Assembly Work

In this chapter, you’ll continue to put together various sub-assemblies; the machine isn’t quite in its final form yet, but it’s getting close. We’ll continue to provide you with a hardware summary of the various bolts, nuts, and other pieces you’ll need (including some optional hardware that will be explained). Remember to visit the book’s forum discussion if you have any questions related to the assembly process in this chapter or any other chapter.

Required Hardware and Parts Summary

For Chapter 11, you will be using the following plywood pieces and hardware:

- Part H – Y-Axis Rail Support
- Parts F and G – Upper Structural Sides
- Part C – Tabletop
- Qty-4 Strong-Tie metal brackets
- Qty-16 #8-32 machine screws, 1” length
- Qty-32 #8-32 nuts
- Qty-4 of 1/4” machine screws, 1-1/2” length
- Qty-4 of 1/4” barrel nuts, 7/16” length
- Qty-16 #8-32 screws, 3/4” length
- (Optional) #8-32 machine screws, 1” length
- (Optional) #8 washers

Preparing the Y-Axis Rail Support

You’re going to prepare the Y-Axis Rail Support (Part H) in a similar manner to that of the Z-Axis Rail Support (Part K). You will be attaching two Strong-Tie rails to Part H using #8 screws of 1” length.
Figure 11-1 shows Part H with the two of the #8 bolts inserted through the Strong-Tie and into the plywood piece.

**Figure 11-1. Part H with two #8 bolts holding a Strong-Tie in place**

Finger-tighten two #8 nuts onto the #8 bolts through the Strong-Tie and into the plywood. Attach the second Strong-Tie to Part H using two additional #8 bolts (1” length). Figure 11-2 shows the two Strong-Tie rails attached.