# R/C Aircraft Pit Table

## **Plans and Instructions**



Designed by Jim David Northeast Side Taildraggers R/C Aviation Club Noblesville Indiana <u>www.NeST-RC.com</u> July 2013

#### **Overview:**

The pit table shown on the cover page of this booklet can be built quite simply using materials purchased from most local "big box" hardware/lumber stores, and using only a few power tools. It is a heavy-duty table and is designed to provide many years of service. The cost for the materials to build this table is about \$56, and very little scrap lumber is left over.

#### Materials:

Quantity	Size	Туре	Est. \$ ea.	Total \$
3	5/4" x 6 x 10'	Pressure Treated Deck Boards	\$5.50	\$16.50
2	2" x 4" x 10'	Pressure Treated Lumber	\$4.20	\$8.40
4	2″ x 4″ x 8′	Pressure Treated Lumber	\$3.80	\$15.20
1	¾" dia. x 28"	PVC pipe	\$0.55	\$1.10
1	¾" dia. x 1'	Pipe insulation	\$0.30	\$0.60
1	2" dia. x 1'	Heat Shrink Tubing	\$2.50	\$5.00
About ½ lb.	#8 x 2″	Deck Screws		\$3.00
About 1 lb.	#8 x 3"	Deck Screws		\$6.00
			Total:	\$55.80

Material notes:

- 1. ¾" PVC Pipe has an outside dia. of about 1" and may only be available in 10' sections
- 2. Pipe insulation may only be available in 6' sections
- 3. Heat shrink tubing may only be available in 4' sections

#### Tools:

- 1. Tape Measure & pencil
- 2. Circular saw, or power miter saw
- 3. Electric drill with 1-1/8" wood drill bit
- 4. Screw gun (you can screw it together with a hand screw driver, but it won't be much fun)

#### Lumber Cuts:

Cut the boards as follows (Note that "/" and "\" indicate  $45^{\circ}$  angle cuts). Mark the dimension on each board as it is cut. Pieces will be identified by length in the build instructions:

#### 5/4" x 6" x 10' (x2)

6' 2' 2'
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5/4" x 6" x 10' (x1)

2'	2'	2'	2'	2'

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2" x 4" x 10' (x2)							
32″	32"	32"			8″ 8	8″	8″
2" x 4" x 8' (x1)			Γ				
	48"			48″			
2" x 4" x 8' (x1)							
	33"		33"		30"		
<b>2" x 4" x 8' (x1)</b> (n	ote "/" 45° angle cuts, 12" mea	asured on lon	g edge)				
	30"	21"	21"	8″	/12"\		S
-							

2" x 4" x 8' (x1) (note "/" 45° angle cuts, 29.5" measured on either edge, 12" measured on long edge)

/29.5"/	/29.5"/	/12"\	\12"/	/12"\	S
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#### Assembly:

**Step 1:** Begin by assembling a 24" x 33" box using the 2"x4"x33" pieces and the 2"x4"x21" pieces as shown using (8) #8 x 3" deck screws. The 21" boards should be "inside" the 33" boards. Assemble on a flat surface.



**Step 2:** Attach the two 2"x4"x48" pieces to the box as shown, and add a 2"x4"x8" piece to connect the ends of the 48" pieces as shown. Use (8) #8 x 3" deck screws.



**Step 3:** Install the 6' and 2' deck boards on top of the structure as shown. Use #8 x 2" deck screws as shown.



**Step 4:** Flip the assembly over. Attach the (6) 2"x 4"x32" legs as shown, making sure that they are square and plumb. Use #8 x 3" deck screws.



**Step 5:** Install the (2) 2" x 4" x 30" shelf supports as shown using #8 x 3" deck screws.



**Step 6:** Install the diagonal braces as shown; Install the 12" braces first. 29.5" pieces go between the front and middle legs as shown. Also install the 8" brace between the back legs. Use #8 x 3" deck screws.



**Step 7:** Attach the 8" feet to the bottom of the legs using #8 x 3" deck screws as shown. (The feet contact the ground and will eventually rot. They can be easily replaced later).



**Step 8:** Flip the assembly onto its legs. Install the 2' shelf boards as shown using #8 x 2" deck screws. Measure the last board and rip-cut to fit as necessary. Shelf boards should cantilever out in front of the table (they should be flush with the rear edge of the rear shelf support).



**Step 9:** Drill 1-1/8" holes for the tail/wing stop pipes as shown. Slant the drill about 10 to 20 degrees toward the back of the table while drilling so that the stop pipes will angle back slightly when inserted.



**Step 10:** Cut the  $\frac{3}{4}$ " PVC pipes into 2 lengths 14" long (each). Cut two 12" lengths of the pipe insulation and wrap them around the pipes leaving about 2" of the bare pipe exposed at one end. Slide the heat shrink tubing over the insulation and shrink it with a heat gun. (Note: We were unable to find 2" diameter heat shrink tubing locally the last time we built some tables, so we used 1-1/2". We had to slightly compress the pipe insulation using cellophane wrap to get the heat shrink tubing over the pipes).

Insert the bare end of the pipes into the holes on the table in the desired position. We have found that the best position is the one that allows the airplane's wheels to go as far forward on the table as possible.





**Step 11:** Apply two heavy coats of polyurethane to the table and shelf surface to prevent damage from fuel. The table is now complete and ready to deploy.



I hope you enjoy using your pit table. If you have found value in this document, please consider donating to the cause. Suggested donation is \$10.

Sincerely, Jim David President Northeast Side Taildraggers R/C Aviation Club <u>www.NeST-RC.com</u> **Field Address:** 15300 Olio Road Noblesville IN 46060 **Admin Address:** 10194 N 50 W Fortville IN 46040



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