Rev:1/25/14 Designed by: Ritchie Kinmont

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Indoor Boomerang



About this project:

The indoor boomerang is a great project for all ages, built from inexpensive and easy to find materials. Patterns for Boys and Girls are provided for both right and left handed boomerang pilots. With a little practice, you'll be able to throw and catch your boomerang in an average sized room. Younger kids may have difficulty throwing the boomerangs, but will enjoy watching them fly.

"These Boomerangs are light weight and safe to fly indoors. My favorite is the P-47, but the Flower Power boomerang is a close second."





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What's it made of?

The indoor boomerang is made from full sheet ink jet printer labels and thin cardboard. You can use a cereal box for cardboard or heavy poster board. Included in these instructions are 5 boomerang patters that can be printed out on the full sheet labels, then applied to the cardboard.





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Project Construction





"Check out my way cool Sonic Dad gauges for project difficulty, time, and cost. Full sheet printer labels can be purchased in most stores carrying office supplies, or you can find them online from Amazon.com and others."

SHOPPING LIST				
Quantity	Item needed	Where to find it	See Figure	
1	Avery full sheet ink-jet printer labels #48165	Discount retail store, office supply store, online	А	
1	Cardboard from a cereal box, or you can use heavy weight poster board	Discount retail store, office supply store	C,D	

SUPPLIES AND TOOLS NEEDED		
Item needed	Where to find it	
Sharp scissors	Discount retail store, home improvement store	

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0 0 0 0 0 0 0





Using a sharp pair of scissors, roughly cut out the boomerang, leaving about $\frac{1}{2}$ " around the printed pattern. (fig. B)



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Choose the boomerang design you would like to make. Boomerang patterns are provided for right and left handed pilots. Using an adhesive full sheet label(8 1/2" x 11"), print the pattern in an ink jet or laser printer. Be sure to print in full scale. (fig. A)



Step 3

To get the best flying results from your boomerang, choosing the correct cardboard is very important. Select a flat piece of cardboard from a cereal box or heavy poster board. The thickness of this type of cardboard is just right for this design. Cut a piece about 10" x 10" and lay it on a flat surface. Carefully remove the adhesive backing from the pattern. Begin with the tip of one wing, gently apply the pattern to the cardboard, moving your fingers back and forth, working all the bubbles out. Work from the tip of the first wing to the center, then work your way out to the next tip, then from the center out to the last wingtip. (fig.C)

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Step 1



Step 4

To make the final trim easier, roughly cut around the boomerang leaving about $\frac{1}{2}$ " extra cardboard around the outside. Make the final cut around the boomerang, cutting carefully on the solid outside line. (fig.D)



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Step 5

On all three wings, carefully cut on the aileron cut line, stopping at the fold line. (fig.E)



Step 6

Use a work surface with a sharp edge, like a counter top or desk top. Carefully align the aileron fold line with the edge of your work surface. Holding the wing securely, crease the aileron along the fold line. Carefully bend the aileron down about 20° degrees. Repeat for all three ailerons. (fig. F)



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Step 9 Now check each wing to make sure it is not bowed up or down. Each wing should be flat and on the same plane with each other.(fig. I) Congratulations! Your Boomerang is finished

fig.I

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fig.H

Each wing should be

flat with no twist





P-47 Boomerang

(Right hand) Print full scale

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J3 Cub Boomerang (Right hand) Print full scale

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Aileron Cut Line Cut here up to fold line on all three wings Aileron Deflection Gauge Cut boomerang out carefully around outside line after applying to cardboard piece Aileron Fold Line Fold ailerons down along this line up to cut line on all three wings









J3 Cub Boomerang (Left hand)

Print full scale

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 $\begin{array}{c} \textbf{Aileron Cut Line} \\ \textbf{Cut here up to fold line on all three wings} \\ \end{array}$

Aileron Deflection Gauge

Cut boomerang out carefully around outside line after applying to cardboard piece

Aileron Fold Line Fold ailerons down along this line up to cut line on all three wings

Flower Power Boomerang (Left hand)

Print full scale

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Aileron Cut Line Cut here up to fold line on all three wings Aileron Deflection Gauge Cut boomerang out carefully around outside line after applying to cardboard piece Aileron Fold Line Fold ailerons down along this line up to cut line on all three wings

