

Materials List

Rigid Wingsail

All Balsa, Heat Shrink, Iron etc. can be found at Hobby Store (or online)

What I bought...

Dowels and hardware can be found at hardware store (Home Depot, Lowes)

Main Element

| Item | Dimension | Quantity | Price/per | Total | Notes |
|---------------------------|------------------------|----------|-----------|----------|--|
| Balsa Sheet | 3/32" x 3" x 36" | 2 | \$ 1.85 | \$ 3.70 | Only need if you aren't getting laser cut ribs |
| Spar Dowels (oak) | 1/4" DIA x 48" | 2 | \$ 1.45 | \$ 2.90 | will be cut down to 1m and 41in respectively |
| Side Spars | 3/16" x 1/4" x 36" | 3 | \$ 0.75 | \$ 2.25 | Need two 1m length if possible |
| Trailing edge spar | 3/32" x 1" x 36" | 2 | \$ 1.30 | \$ 2.60 | Need 1m (40in) length if possible |
| Flap pivot bolts | 6X32" x 1 1/4" | 2 | \$ 0.10 | \$ 0.20 | |
| Wing nuts | 6X32" | 2 | \$ 0.10 | \$ 0.20 | |
| Flap angle gauges (balsa) | 3/32" x 3" x 1 1/2" | 2 | | \$ - | Take from left over sheet |
| Threaded rod | 10X24 x 3" | 1 | \$ 0.50 | \$ 0.50 | For attachment to rolling cart |
| Nut | 10X24 | 1 | \$ 0.50 | \$ 0.50 | |
| Wing nut | 10X24 | 1 | \$0.10 | \$ 0.10 | |
| Laser Cutting: | | 1 | \$20 | \$ 20.00 | \$12 plus shipping |
| Flap | | | | | |
| Blasa Sheet | 3/32" x 3" x 36" | 1 | \$ 1.85 | \$ 1.85 | Only need if you aren't getting laser cut ribs |
| Leading edge dowel | 1/4" DIA x 48" | 1 | \$ 0.69 | \$ 0.69 | cut down to 1m |
| Side spars | 1/8" x 3/16" x 36" | 3 | \$ 0.75 | \$ 2.25 | Need two 1m lengths if poss. |
| Trailing edge spar | 1/16" x 1" x 36" | 2 | \$ 1.30 | \$ 2.60 | Need 1m length if possible |
| Blots to attach to main | 6X32 x 1" | 6 | \$ 0.10 | \$ 0.60 | |
| Nuts | 6X32 | 8 | \$ 0.05 | \$ 0.40 | |
| washers | 6X32 | 8 | \$ 0.05 | \$ 0.40 | (for fine tuning spacing with main element) |
| other | | | | | |
| Acrylic rectangular rod | 1/2" x 3/16" x 6" | 2 | \$ 0.50 | \$ 1.00 | attaches flap to main element (use anything rigid) |
| ULTRACOTE | 24" roll | 1 | \$ 12.99 | \$ 12.99 | should be at least 40" long |
| CA Glue (thin superglue) | 1/2oz Bottle | 1 | \$ 2.99 | \$ 2.99 | Could use wood glue superglue is faster |
| Hobby Iron | | 1 | \$ 15.00 | \$ 15.00 | (I did not buy) Would Recommend though... |
| Iron Sock | | 1 | \$ 5.00 | \$ 5.00 | (if you get iron) |
| Heat gun | | 1 | \$ | \$ - | Not necessary if you have Iron |
| Sand Paper | 280 grit | 5 | \$ 0.75 | \$ 3.75 | |
| | 320 grit | 5 | \$ 0.75 | \$ 3.75 | |
| Files | Various flat and round | | | \$ - | For shaping ribs mostly(if laser cut ribs don't need) |

My Total Cost: \$ 46.22

Add LaserCut and Hobby Iron

Total Price: \$ 77.77