



With Steve Richards

# How to Build a Dobsonian mount

## Components list

Fixings					
Screws					
Type	Size	Length	Material	Quantity	Comment
Wood countersunk	No. 8	1.5-inch	Bright Zinc Plated	19	Rocker Box assembly
Wood countersunk	No. 8	1.25-inc	Bright Zinc Plated	1	To suit PVC optional Door Stop
Wood countersunk	No. 6	0.75-inch	Bright Zinc Plated	20	Feet, Teflon pads, laminate strip, optional bubble level
Bolts					
Type	Size	Length	Material	Quantity	Comment
Allen key Cap	M10	60mm	A2 Stainless Steel	1	Azimuth Bearing
Allen key Cap	1/4-inch - 20 UNC	2-inch	A2 Stainless Steel	4	If your tube rings use 6mm bolts, use 6mm instead
Allen key Cap	1/4-inch - 20 UNC	2-inch	A2 Stainless Steel	4	Bolting Retaining Disks to Rocker Box
Washers					
Note: always use a washer under both the bolt head and nut to spread the load and protect the surfaces.					
Type	Size		Material	Quantity	Comment
Form 'C'	M10		A2 Stainless Steel	2	Azimuth bearing
25mm Penny	M6		A2 Stainless Steel	8	Altitude wheels under bolt head for additional support
Standard	M6		A2 Stainless Steel	8	Retaining disks
2-inch Penny	M6		Bright Zinc Plated	8	Optional for spacing altitude wheels if required
Cup Washers	No. 8		Bright Zinc Plated	10	Optional for non-countersunk visible screw finish
Cup Washers	No. 6		Bright Zinc Plated	4	Retaining laminate strip ends on altitude wheels
Nuts					
Type	Size		Material	Quantity	Comment
'T' Nuts	M10		Bright Zinc Plated	2	Azimuth bearing and securing (one will be drilled out)
Nyloc	M10		A2 Stainless Steel	1	Azimuth bearing
Nyloc	1/4-inch 20 UNC		A2 Stainless Steel	4	Bolting Retaining Disks to Rocker Box

<b>Plywood</b>					
Type	Size	Thickness	Material	Quantity	Comment
Far East	8 ft x 4 ft	18mm	Hardwood	1	For painted finish
Birch	8 ft x 4 ft	18mm	Birchwood	1	Optional for natural wood finish
<b>Bearings (PTFE pads)</b>					
Type	Size	Thickness	Material	Quantity	Comment
PTFE Sheet	25mm x 25mm	3mm to 5mm	PTFE	3	Azimuth bearing
PTFE Sheet	25mm x 18mm	3mm to 5mm	PTFE	4	Altitude bearings
'Slide Glides	1-inch or 2-inch	6mm	PTFE Coated	3	Optional for azimuth bearing in place of PTFE above
<b>Paint and Adhesives</b>					
Type			Material	Quantity	Comment
Undercoat Paint for Wood				1	External quality
External Gloss or Satin Paint				1	External quality
External Wood Varnish				1	Optional for natural wood finish
White Wood Glue			PVA	1	Rocker Box assembly
5 Minute Epoxy			Epoxy Resin	1	Adjustable feet and 'T' nuts
Impact Adhesive				1	Laminate strip
<b>Sundries</b>					
Type	Size	Thickness	Material	Quantity	Comment
Kitchen Unit Adjustable Legs	150mm		Plastic	3	Pack of 4 - must be the type that come in 3 parts for cutting down
Textured Edging Strip	3000mm x 42mm	0.5mm	Laminate Plastic	1	Altitude bearings
Self Adhesive Felt Pads	20mm diameter	0.5mm	Felt	6	Retaining disks
LP Record	300mm diameter		Vinyl	1	Azimuth bearing
Circular Target Spirit Level	43mm diameter		Plastic	1	Optional for Base of Rocker Box
Metal Pull Handle	225mm		Aluminium	1	Optional for Rocker Box front
Door Stop	25mm x 30mm		PVC	1	Optional for Inside Rocker Box front to protect telescope tube when vertical

<b>Tools</b>		
Plunge Router	1/4-inch HSS bit	Tape Measure
Straight Router Cutter approx. 12.7mm x 25mm	Allen Keys	Pencil
Electric Drill	Fine Hacksaw	Scissors
12mm HSS bit	Countersink bit	Transparent Protractor
10mm HSS bit	Tapered Reamer >14mm	Paint Brush
4.5mm HSS bit	Crosshead Screwdriver	180 Grit Sandpaper
2mm HSS bit	Adjustable Spanner up to 18mm	3mm MDF sheet to make hole cutting jig
1.5mm HSS bit	Steel Rule	