

Materials List

- ❖ Cardboard tube (1) ... Construction supply houses usually carry these tubes, which are used for forming concrete columns. See page 3 for tube length and width.
- ❖ Exterior grade plywood 4' x 8' x 3/4" thick. For an eight or ten inch telescope, one sheet will be plenty.
- ❖ Paint.....Flat black is best for inside the tube; any dark color is fine for the the outside of the tube. (Painting the outside of the tube is optional.)
- ❖ Sheet Metal Screws.....Panhead, size #8, 3/4" long. Get at least a dozen.
- ❖ Nails.....Assorted sizes. Hot-dipped galvanized box nails work well.
- ❖ Machine Bolts (3).....Three bolts, 1" long; 3/8" inch in diameter.
- ❖ Lag Screw with matching washer (1).....One lag screw, 3" long; 1/2" in diameter.
- ❖ Record (1).....One phonograph record--33 1/3 rpm size (A "used" record is fine.)
- ❖ Chrome-Plated Brass Tubing.....Washbasin drainline trap--1 1/2" outside diameter. We'll need two pieces: one about 1 1/2" long, for the eyepiece holder, and one about 6" long, for the aligning tube. (Available from a plumber's scrap bin.)
- ❖ Cedar Shlm Shingles.....Three pieces, about 1 1/2" to 2" wide. Shingles break easily, so it's a good idea to keep a few extra shingles on hand.
- ❖ Wooden Dowel..... One piece, about 3" long. Usually sold as "closet pole" or "hand rail stock"-- Approximately 1 3/4" in diameter.
- ❖ Cardboard "Mailing" Tube.....One piece, 1 1/2" inside diameter, about 2" long (Grocery stores have this tube in the produce department--used for dispensing plastic bags.)
- ❖ Thumbtacks (3)
- ❖ Leather Scrap.....Three small pieces--about 1/2" square. Old bell leather works fine.
- ❖ Sticker or Decal (1) About 3/4" in diameter.
- ❖ Masonite.....One rectangle of 1/8" thick Masonite board about 3" x 4" (1/4" thick is also O.K.) with a 1 1/2" hole drilled in the center; and three pieces about 1" square.
- ❖ Teflon..... 7 pieces, approximately 1"x1" square, and 1/8" thick. Three pieces will be used for the lower Rocker Box bearings and four for the Cradle Board bearings.
- ❖ Furring nails (4)
- ❖ Glue White glue works fine.
- ❖ Telescope Objective Mirror (1).....See pages 2 and 3 for help in selecting a mirror; See Appendix for mirror sources.
- ❖ Cardboard.....The back of a cardboard breakfast cereal box works nicely.
- ❖ Telescope Diagonal Mirror (1).....See pages 2 and 3.
- ❖ Eyepiece (1).....Eyepieces may be purchased from telescope supply houses (see appendix), or you can salvage one out of an old pair of 7 x 35 binoculars (binoculars should be labeled "fully coated optics".)

Tools Needed

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| ❖ Hammer | ❖ Saw (Table-Saw is helpful but not essential), |
| ❖ Drill and Bits | ❖ Tape Measure |
| ❖ Compass | ❖ Carpenter's Square (helpful but not essential) |
| ❖ Nail Set | ❖ Screwdrivers |
| ❖ Awl | ❖ Crescent Wrench |
| | ❖ Hole cutter or 1 1/2" diameter doorhandle drill bit. |

SOURCES

Sources for "Ready Made" Telescope Mirrors and Telescope Eyepieces:

Coulter Optical, Inc.
P. O. Box K
Idyllwild, CA 92348
(909) 659-4621

We recommend Coulter's mirrors: quality products at very reasonable prices. Call or write for catalog and price list.

Orion Telescope Center
2540 17th Avenue, P.O. Box 1158
Santa Cruz, CA 95061-1158
In California (800) 443-1001
Outside California (800) 447-1001

Call toll free number for free color catalog.

John Dobson's Telescope-Building Video

This 90 minute, full color video is John Dobson's personal guide to making astronomical telescopes--8 inch to 16 inch apertures and larger. Every part of the telescope-making process is shown in detail, from making the mirror (grinding, making the pitch lap, polishing, testing the focal length, reading the mirror curve, figuring, etc.) to building the mount (including special instructions for mounts and mirror-support systems for apertures 16" and larger.) Free color flier available on request.

Price per tape: \$39.95
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CA residents add \$3.40 sales tax.
Total Per Tape (except CA) \$43.45
Total Per Tape (CA only) \$46.85

Make check or money order payable to:
Dobson Astro Initiatives
Remember to include your shipping address!
Mail to:
Dobson Astro Initiatives
P.O. Box 460915
San Francisco, CA 94146-0915

Sources for mirror blanks and other mirror-making supplies:

Willmann-Bell, Inc.
P.O. Box 35025
Richmond, Virginia 23235
(804) 320-7016

Call or write for catalog.

Newport Glass
1631 Monrovia Avenue
Costa Mesa CA 92627
(714) 642-9980

Call or write for telescope-supply catalog