How to Build a Drop Trap Remote Control

Materials:

Qty	Description
1	Radio Controlled Relay (Note 1)
1	Door Lock Actuator, Galaxy AC-1 (Note 2)
1	Battery Holder, 8-AA
8	Batteries, AA, Alkaline (Cheap batteries, Note 3)(Battery Alternatives, Note 4)
1	Cap Screw, 3/8-16 x 3" long
1	Nut, 3/8-16
1	9V Battery Snap Connector
1	Furring Strip, 1"x2"x8' (actual dims ~ 3/4" x 1-1/2")(Note 5)
8	3d 1-1/4" nails
2	1-1/2" common nails
6	Wood Screws, Round/Pan Head, #6x1"
3	Wood Screws, Flat Head, #4x1/2"
1	Machine Screw, 10-32x3/4"
1	Nut, 10-32
1	Washer, Flat, #6
1	Screw Eye, #212, or approx. 7/8" long
1	Alarm Wire, 2 Conductor, 22AWG, 1 foot, stranded preferred
1	Dowel, Wood, 3/16" x ~6" (Note 6)
1	Wire Coat Hanger
1	Rubber Band, ~3"
-	Electrical Tape
-	Sandpaper, 40 Grit

Note 1: http://www.ebay.com/itm/Mini-12V-1-Channel-Way-RF-Remote-Control-Switch-Relay-Output-light-new-/251167748518?pt=UK_Gadgets&hash=item3a7ac3b1a6
Note 2: http://compare.ebay.com/like/330883660420?var=lv&ltyp=AllFixedPriceItemTypes&var=sbar
Note 3: http://www.amazon.com/s/ref=nb_sb_noss_2?url=search-alias%3Daps&field-keywords=maxell
~$12.21 for AA 48-pack (~$.254 each), with SuperSaver shipping
Note 4: Battery alternatives, see website, Option 3 (rechargeable AAs (10) & Sealed Lead Acid)
Note 5: If clean, straight furring strip not available, substitute 1"x2"x8' pine or poplar
Note 6: Alternative dowel, 3/8" x ~6"
Note 7: 4-in-1 Mini Pocket Screwdriver, General No. 744, Home Depot, $1.99

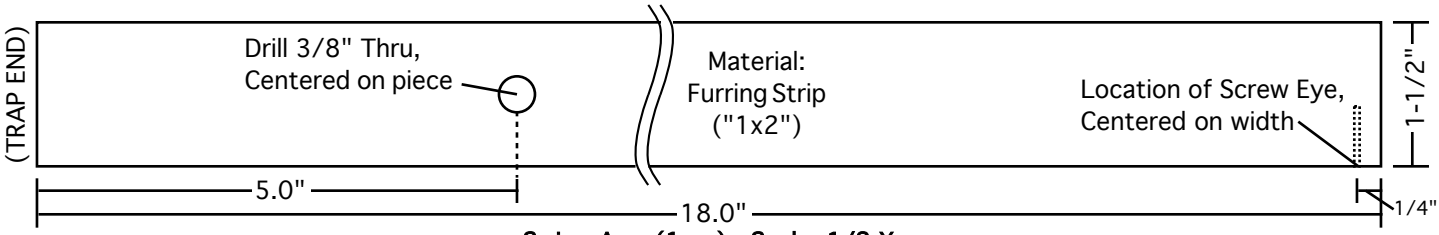
Tools:

Description
Drill, Electric
Drill Bit, 3/8"
Drill Bit, 5/32"
Wood Saw
Hack Saw
Hammer
Pliers
Screwdriver, Slot Head
Screwdriver, Phillips, No. 00 (for changing transmitter battery)(Note 7)
Screwdriver, Phillips, No. 01 (for receiver terminal screws)(Note 7)
Measuring tool(s)

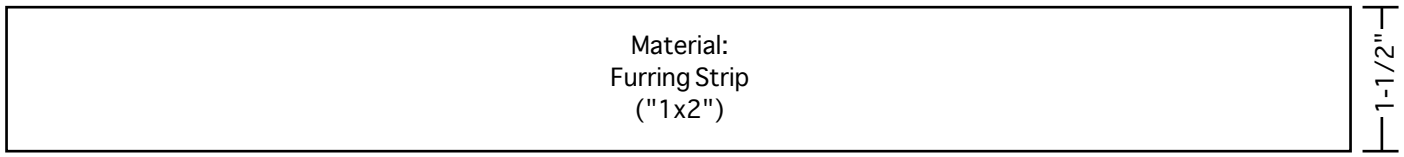
Tools: Optional:

Vise
Drill Press
File, Metal, fine
Soldering Iron, 25-40 Watts
Solder, rosin core

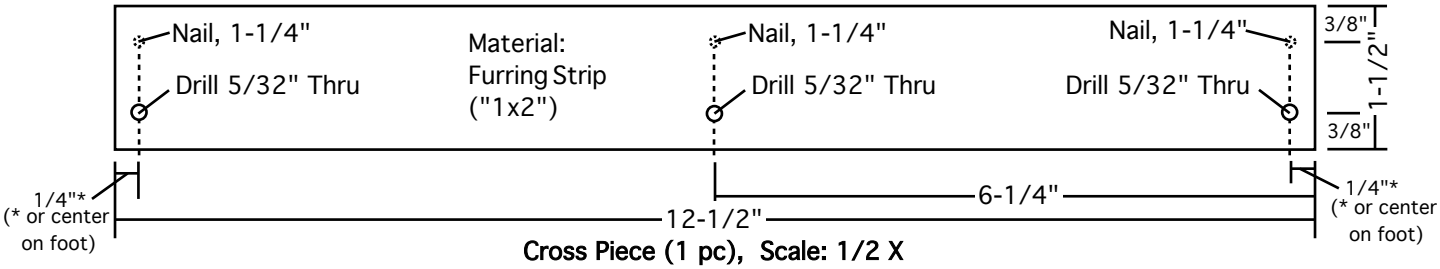
NOTE: Wood dimensions may vary, depending on source and quality. Tweak drawing dimensions as required.



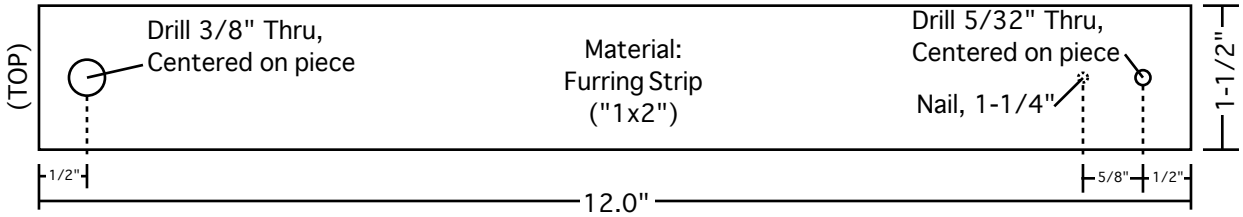
Swing Arm (1 pc), Scale: 1/2 X



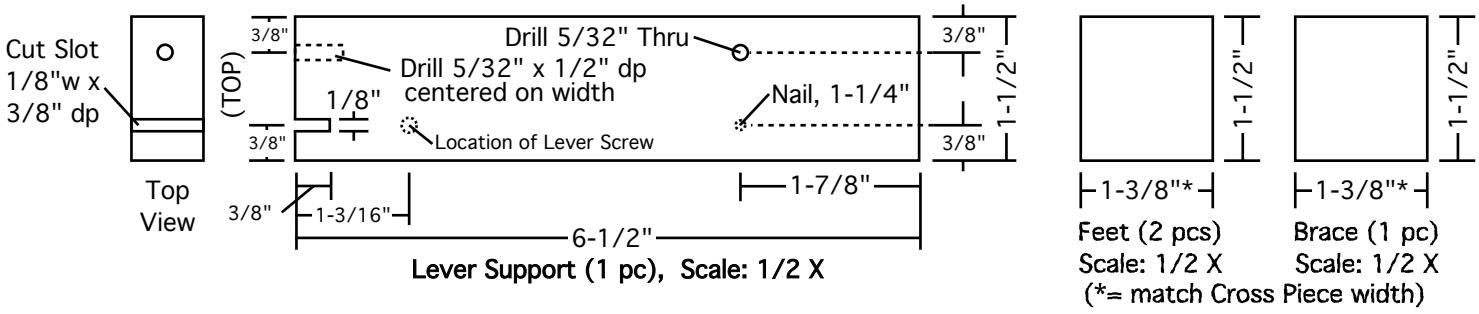
Base (1 pc), Scale: 1/2 X



Cross Piece (1 pc), Scale: 1/2 X



Arm Support (2 pcs), Scale: 1/2 X

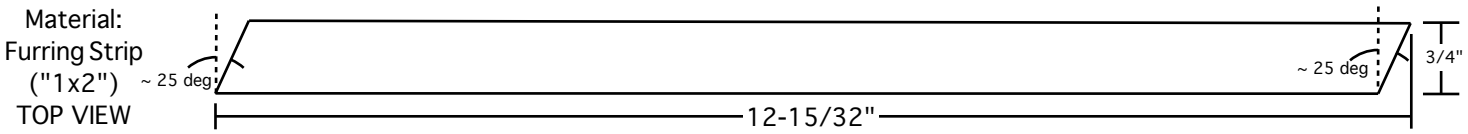


Lever Support (1 pc), Scale: 1/2 X

Feet (2 pcs) Scale: 1/2 X

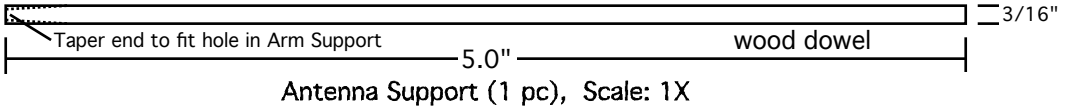
Brace (1 pc) Scale: 1/2 X

(*= match Cross Piece width)

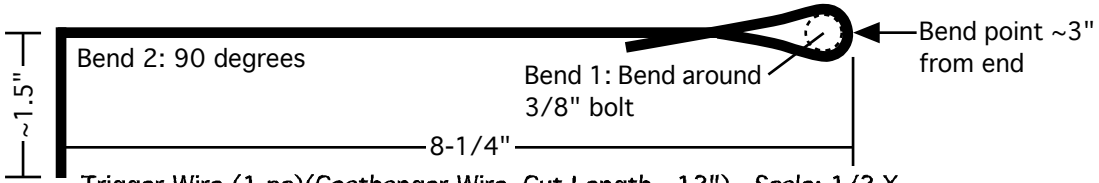


OPTIONAL Base Braces (2) (TOP VIEW)

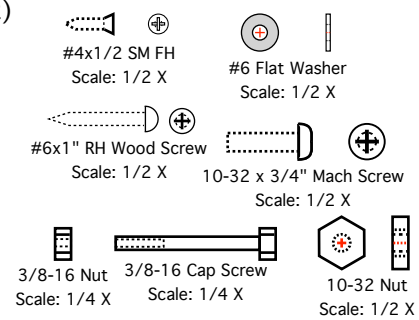
(Install Base Braces between Arm Supports and Feet)

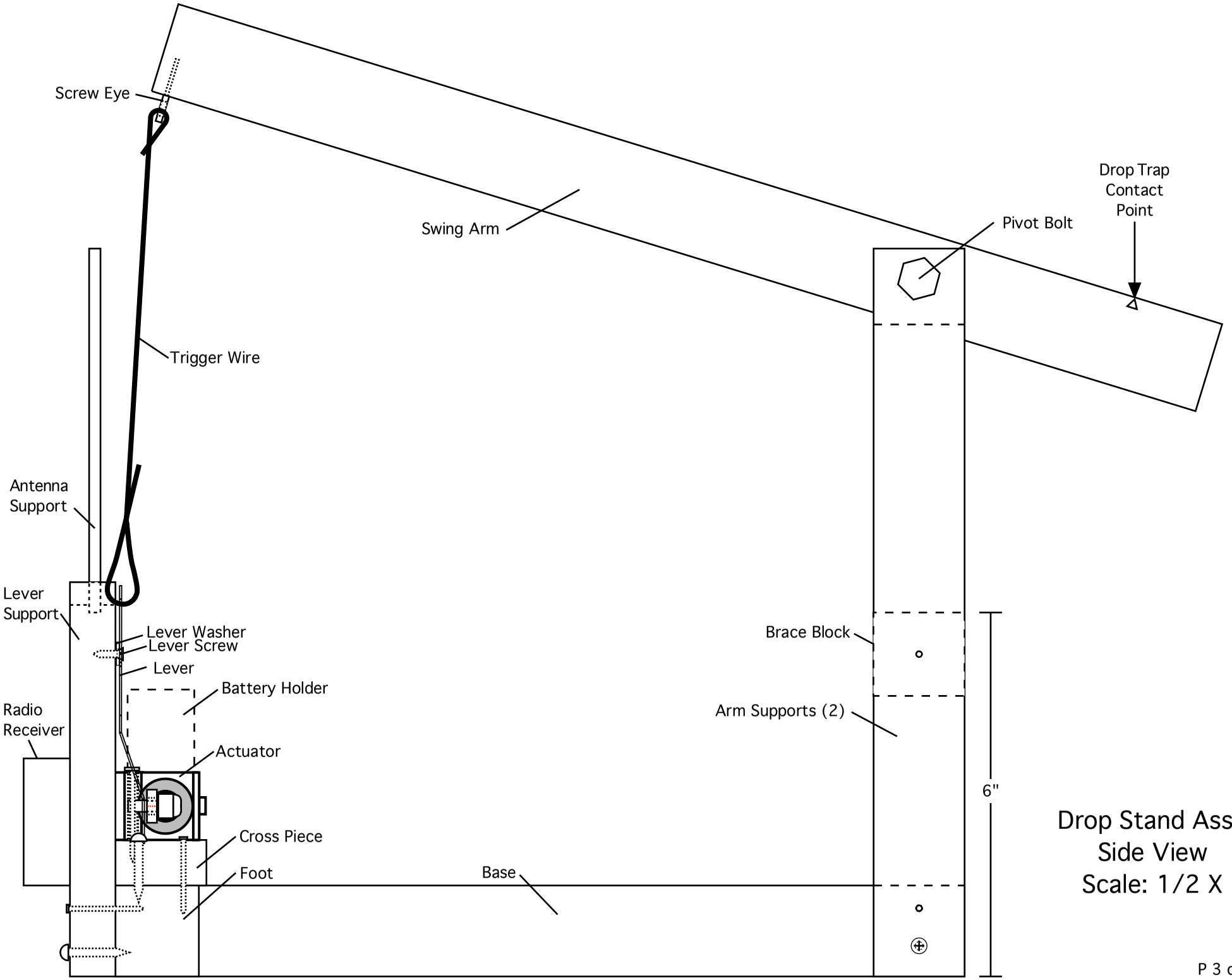


Antenna Support (1 pc), Scale: 1X



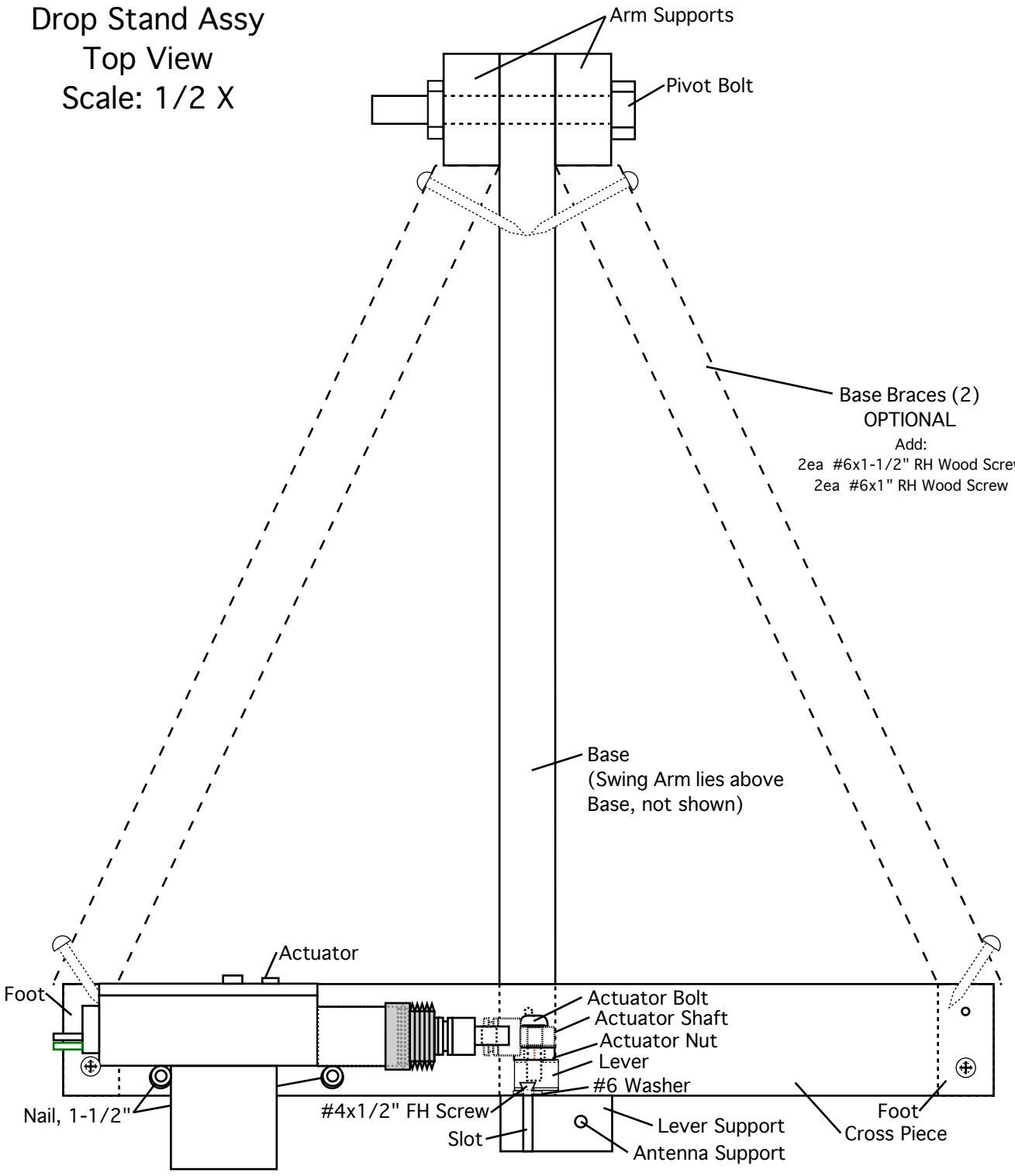
Trigger Wire (1 pc)(Coathanger Wire, Cut Length ~12"), Scale: 1/2 X





Drop Stand Assy
Side View
Scale: 1/2 X

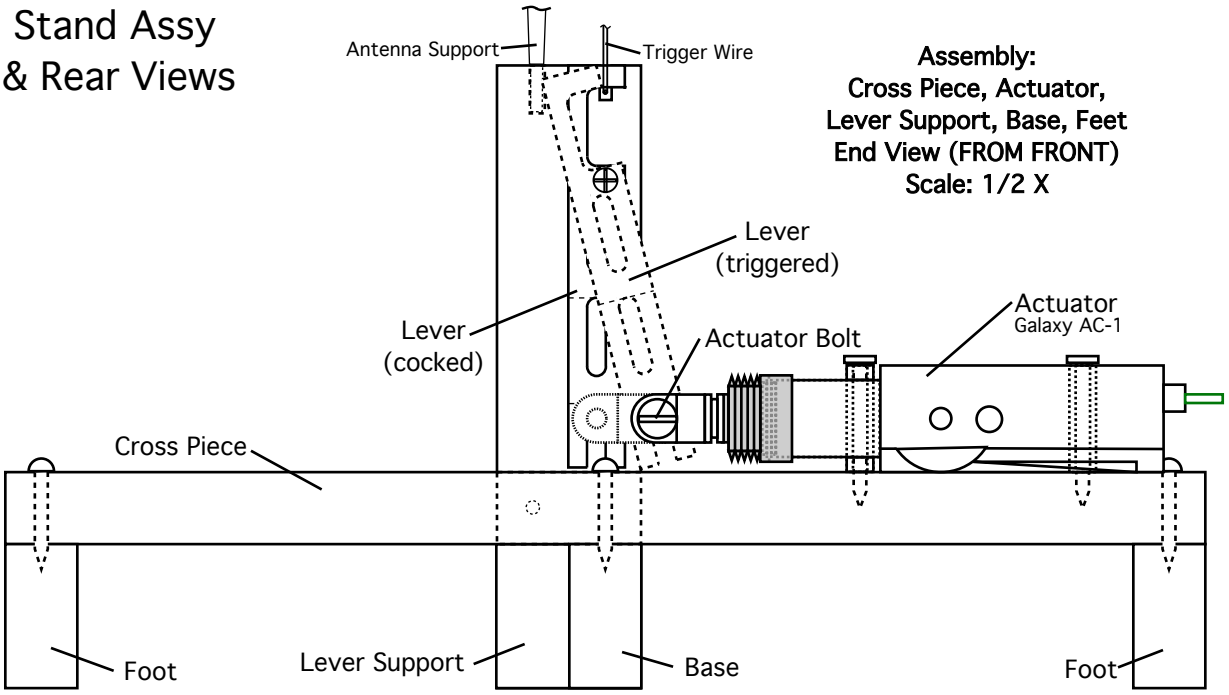
Drop Stand Assy
Top View
Scale: 1/2 X



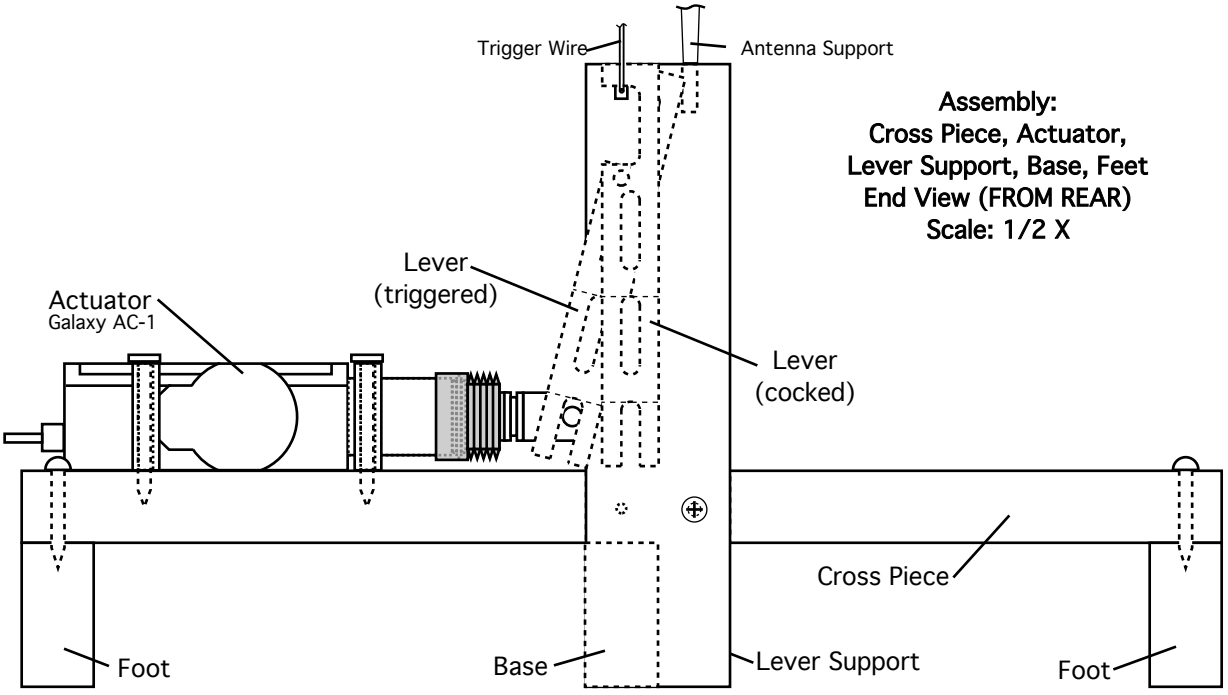
Position Actuator so that the Lever Arm is straight up with the Actuator shaft fully extended and the Actuator Bolt engaging the Lever slot

Assembly:
Cross Piece, Actuator, Lever Support, Base
Top View
Scale: 1/2 X

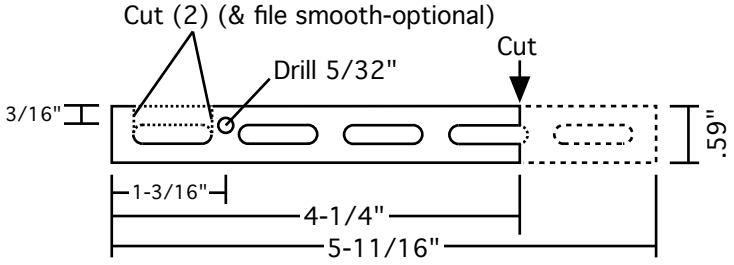
Drop Stand Assy
Front & Rear Views



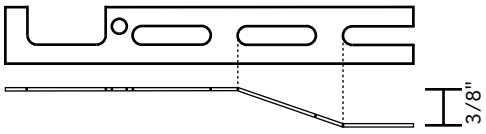
Assembly:
Cross Piece, Actuator,
Lever Support, Base, Feet
End View (FROM FRONT)
Scale: 1/2 X



Assembly:
Cross Piece, Actuator,
Lever Support, Base, Feet
End View (FROM REAR)
Scale: 1/2 X



Lever (Modified Actuator Mounting Bracket)
Scale: 1/2 X



Lever Bending Plan
Scale: 1/2 X

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System Wiring Diagram