Producing NSW Prototype OHW

As used on Mungo Scotts Exhibition Layout

Presented by Peter Gleadall and Geoff Steed

Sydney Model Railway Society

The following presentation is designed to give modellers ideas behind how we developed the OHW structures which we utilise on our exhibition layout Mungo Scotts.

When we decided to construct the overhead after looking at many of the commercially available items we were not satisfied with the items being correct based on the prototype.

We utilised many of the 600+ photos we obtained of the area prior to the Light Rail construction commencing, which enabled us to develop the closes possible re-creation of the exact way the prototype was. This will give you an idea of the thought process behind the end product.

Please feel free to ask any questions you may have and after the presentation feel free to inspect a range of items we have displayed.

Types of OHW Components

From a construction perspective the OHW can loosely be broken down into 3 main elements:

- **Stanchions**

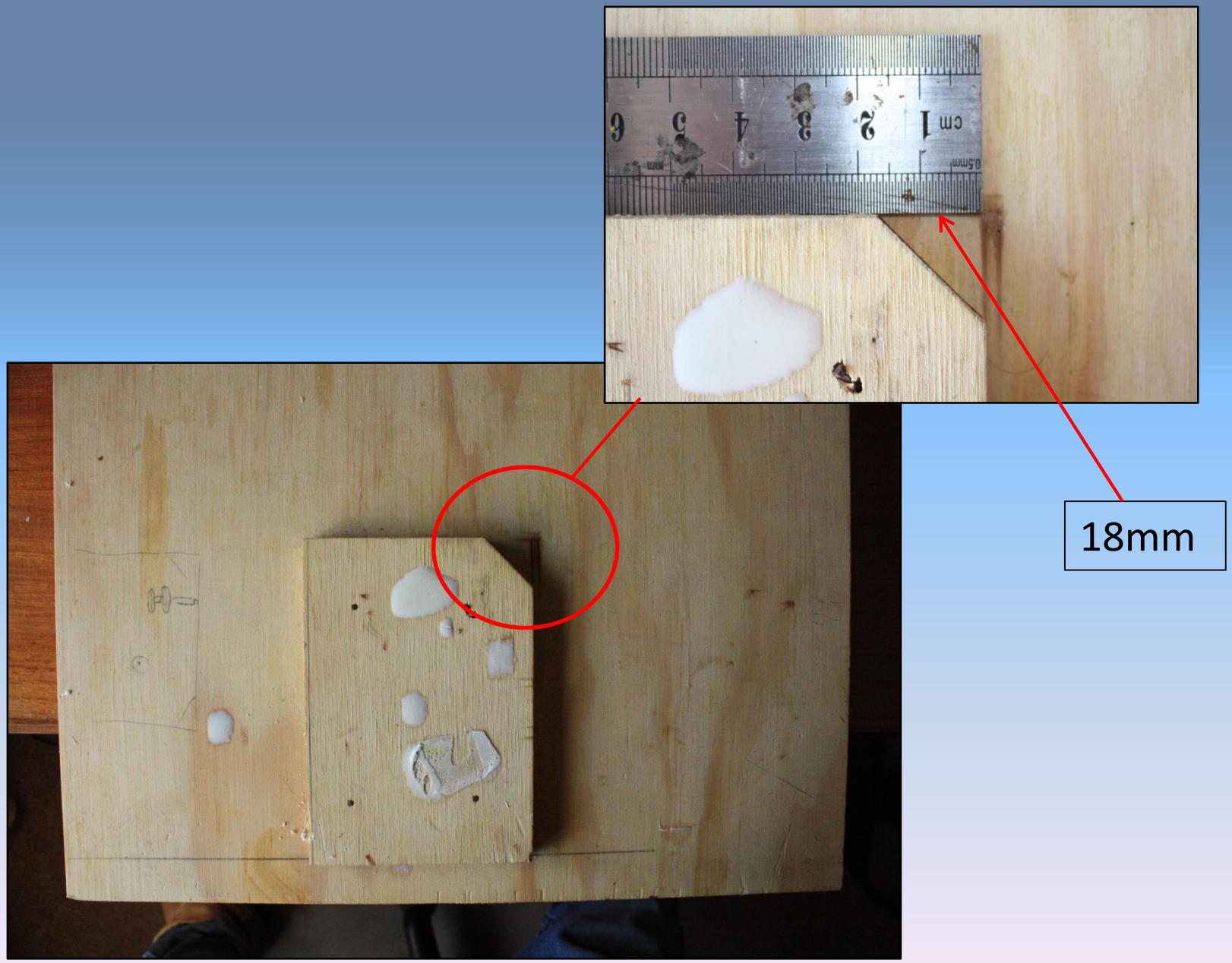
- **Catenary**

- **Cast components (bases and insulators)**

We'll now give you an overview of each element and the process, tools and products used to construct each item.

Tools Required for Stanchions

- Soldering Iron
- Solder (I used a 60/40 tin/lead solder)
- Flux
- Side cutters
- Pliers
- Tweezers
- Files
- Blu-Tac
- Ruler
- Hand saw suitable to cut brass
- A jig to use to manufacturer the angles(see the next slide)


18mm

Stanchion 1

Materials Required

- K & S Precision Metals I beam 1/8 x 1/16 (3.18mm x 1.59mm)

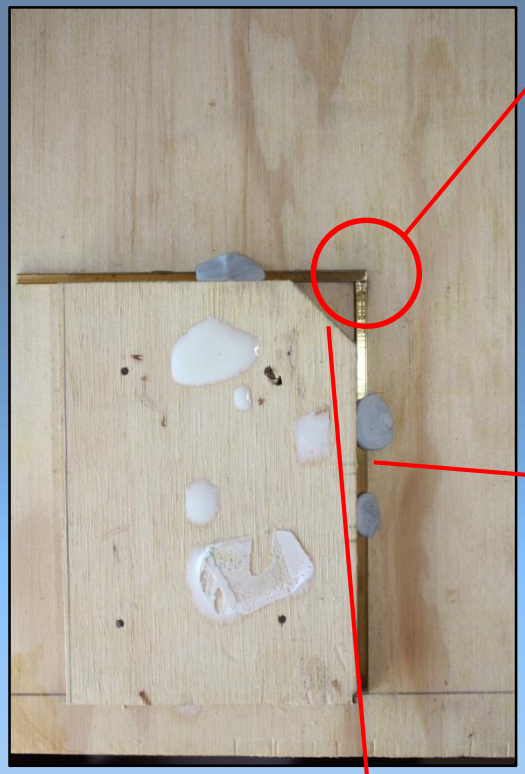
  We purchased the I beam through a Brisbane based company Small Parts and Bearings https://www.smallparts.com.au/ although you may be able to purchase from the USA directly.

- Albion Alloys 1mm brass angle

  Purchased from HobbyCo for $14.95 a 300mm length

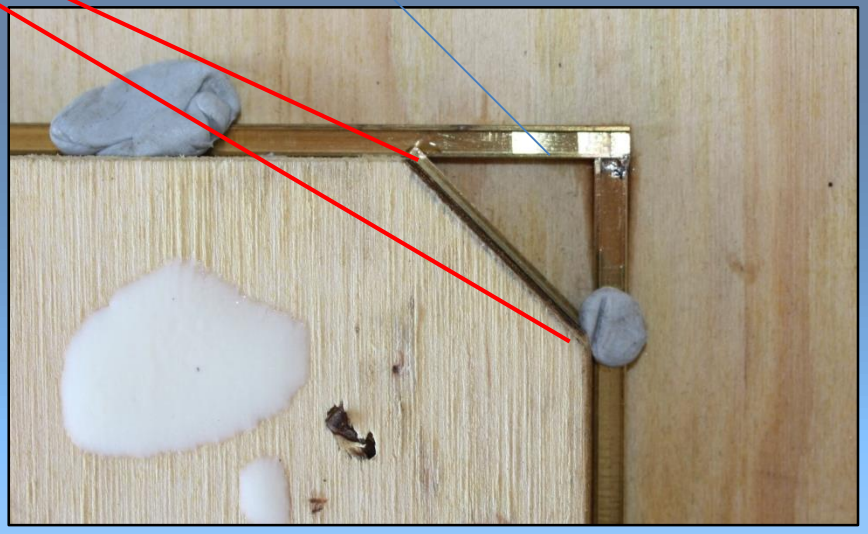
-Keiran Ryan 0.4mm brass wire

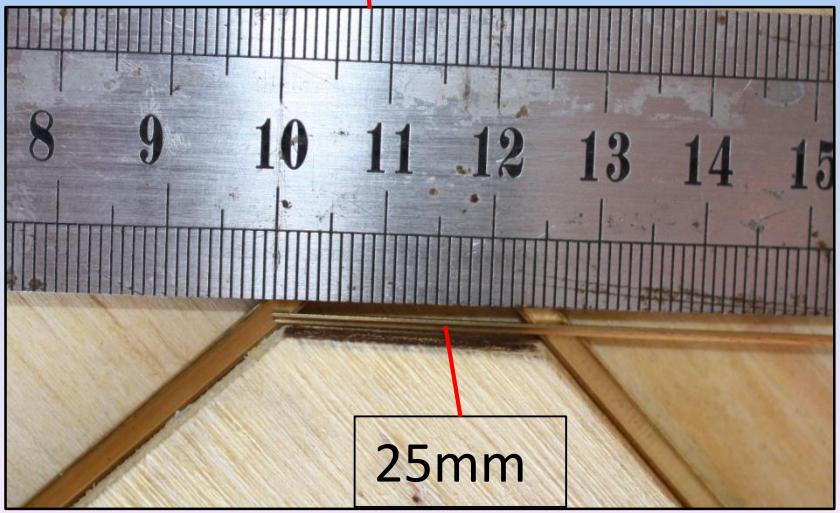
  Purchased directly from Keiran



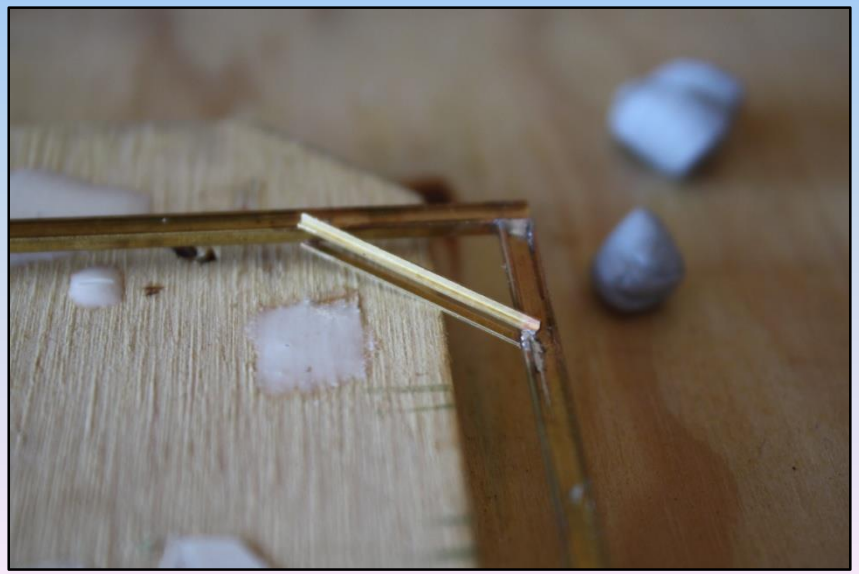
Flux on joint and solder

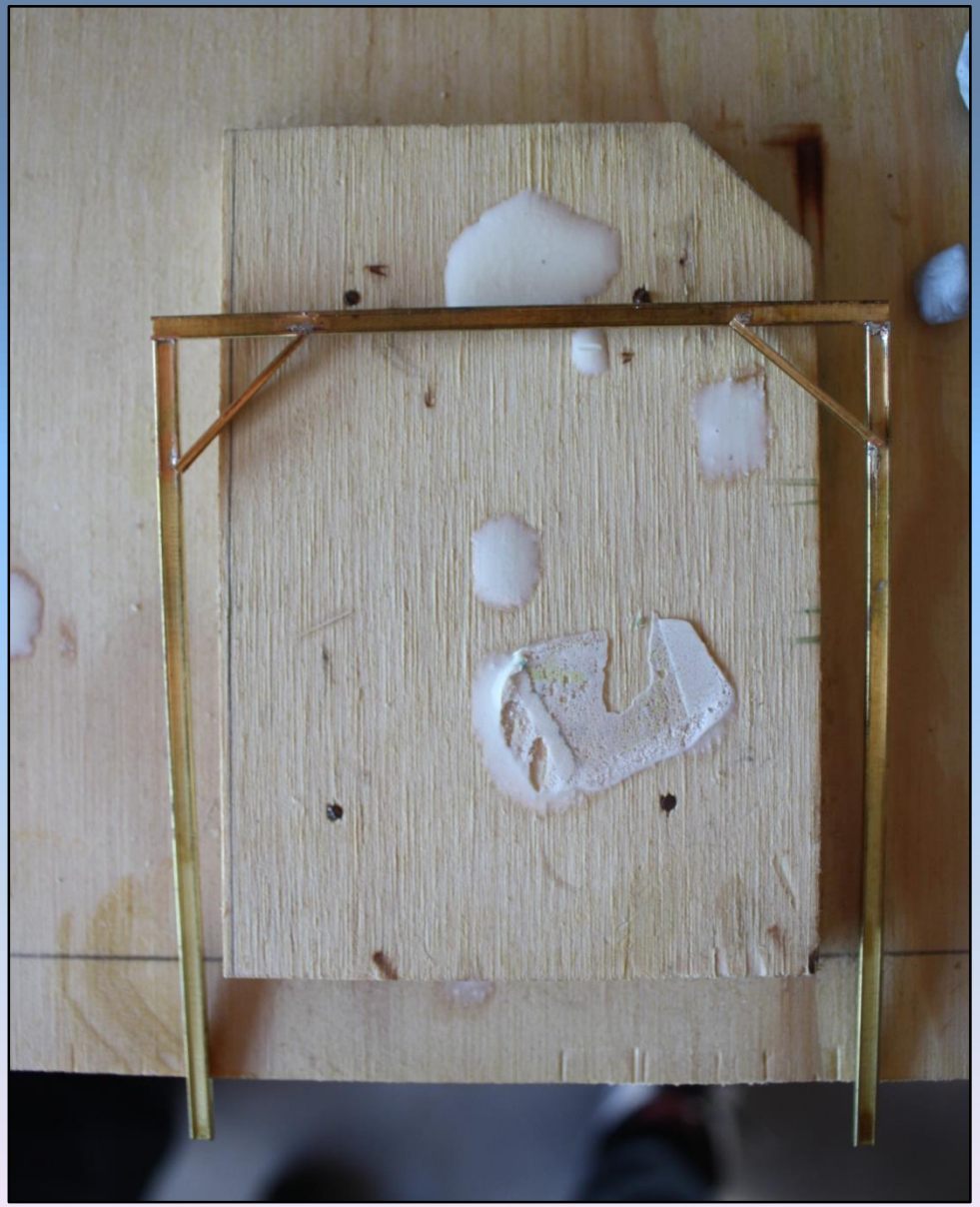
110mm





25mm





Stanchion 2

Materials Required

- K & S Precision Metals I beam 1/8 x 1/16 (3.18mm x 1.59mm)

  We purchased the I beam through a Brisbane based company Small Parts and Bearings https://www.smallparts.com.au/ although you may be able to purchase from the USA directly.

- Albion Alloys micro brass tube 1mm (0.8mm internal diameter)

  Purchased from HobbyCo for $13.95 a 305mm length

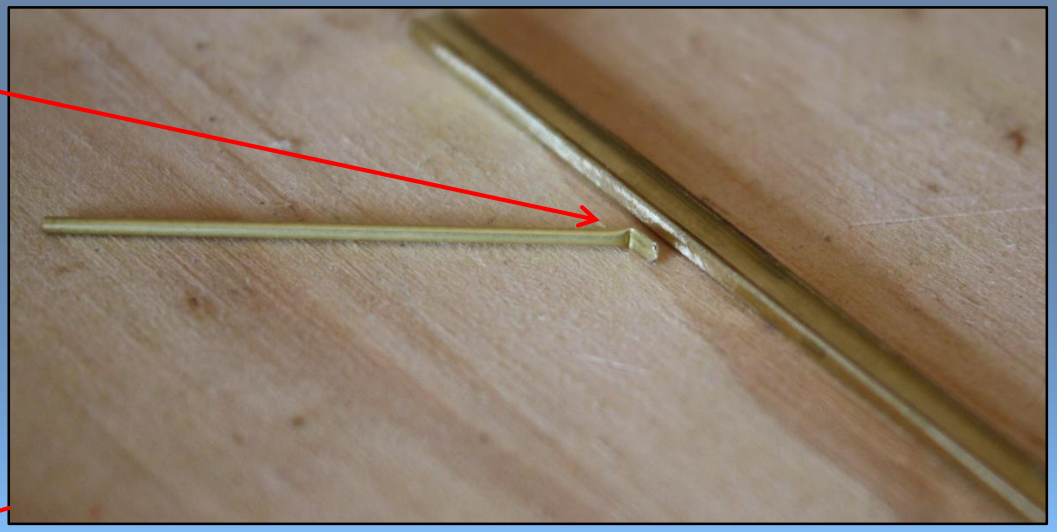
- Detail Associates Brass Flat Bar 0.15” x 0.42”

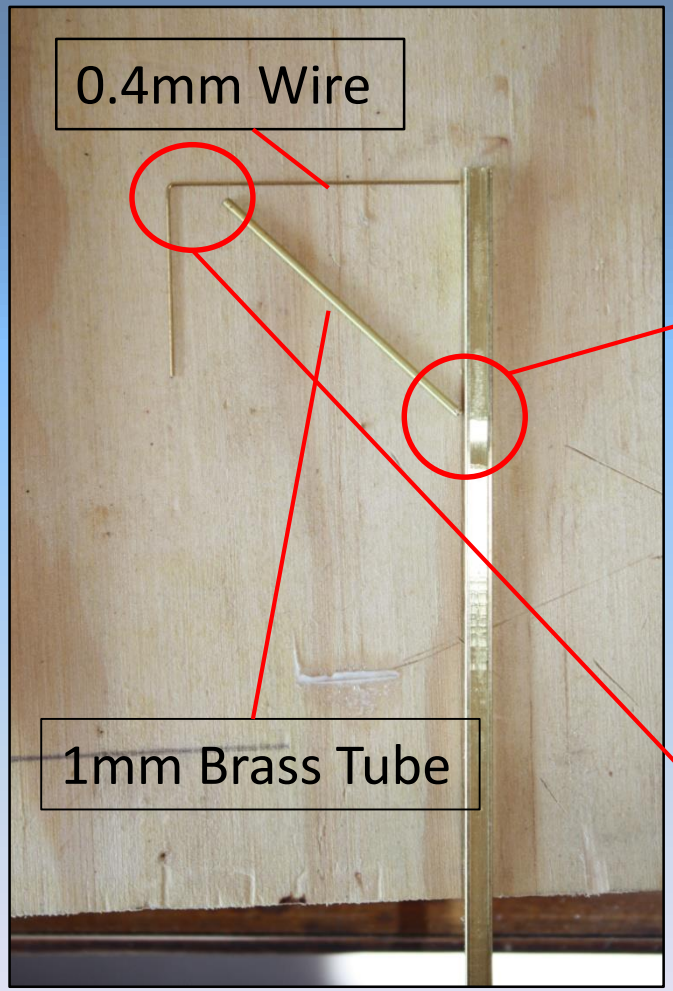
  Purchased from Model Railroad Craftsman

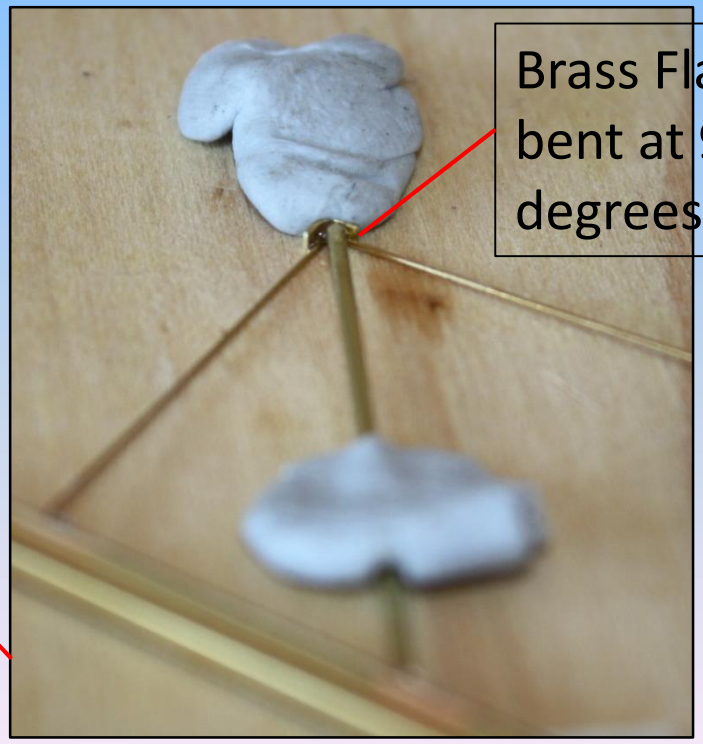
- Keiran Ryan 0.4mm brass wire

  Purchased directly from Keiran

Brass Tube flattened and bent







Brass Flat bar bent at 90 degrees

Stanchion 3

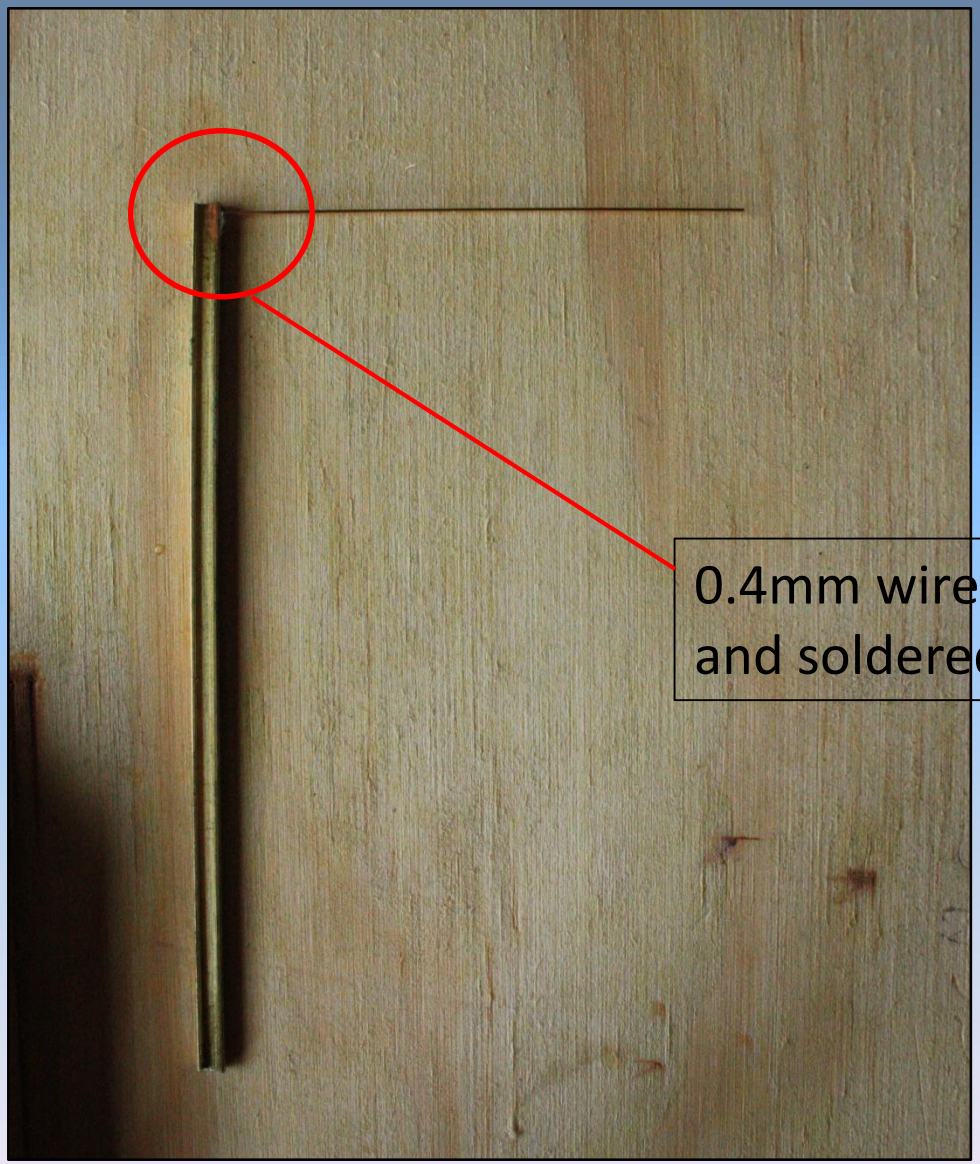
Materials Required

- K & S Precision Metals I beam 1/8 x 1/16 (3.18mm x 1.59mm)

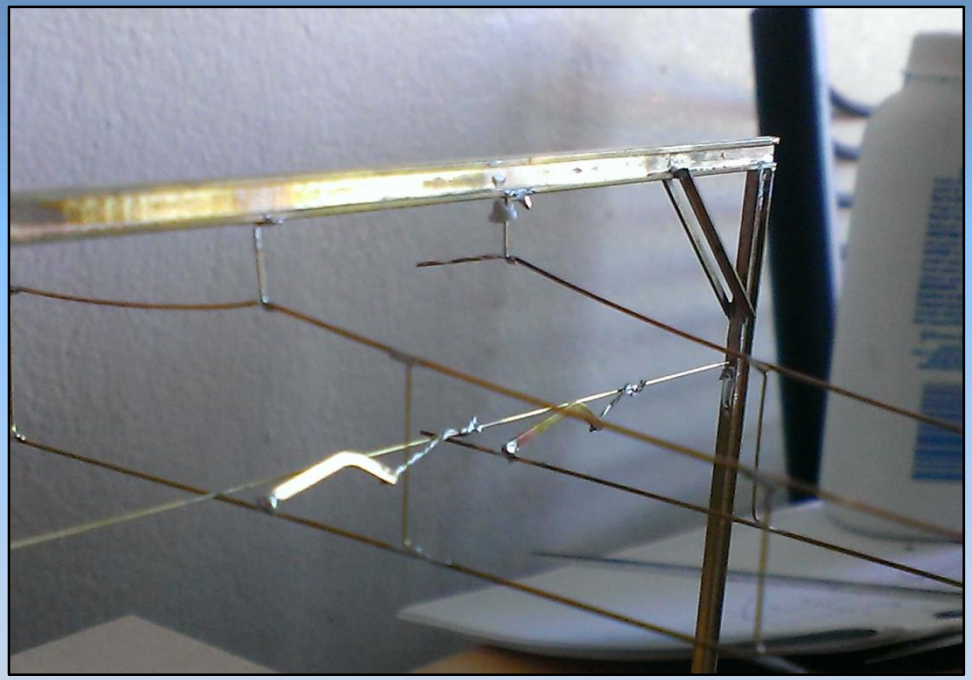
  We purchased the I beam through a Brisbane based company Small Parts and Bearings https://www.smallparts.com.au/ although you may be able to purchase from the USA directly.

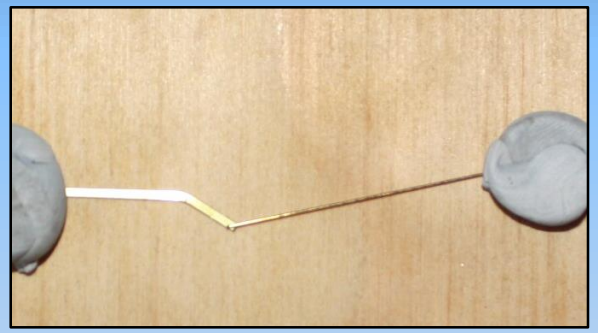
- Keiran Ryan 0.4mm brass wire

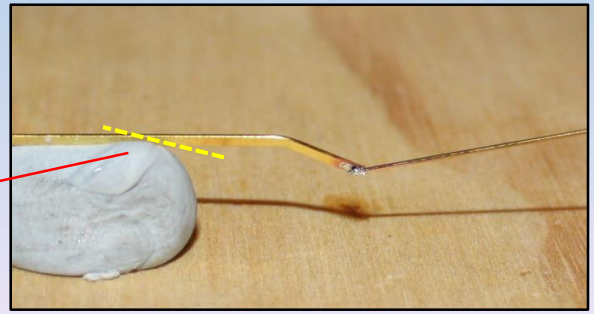
  Purchased directly from Keiran


0.4mm wire bent at 90 degrees
and soldered to the I beam

Pull Off Arms





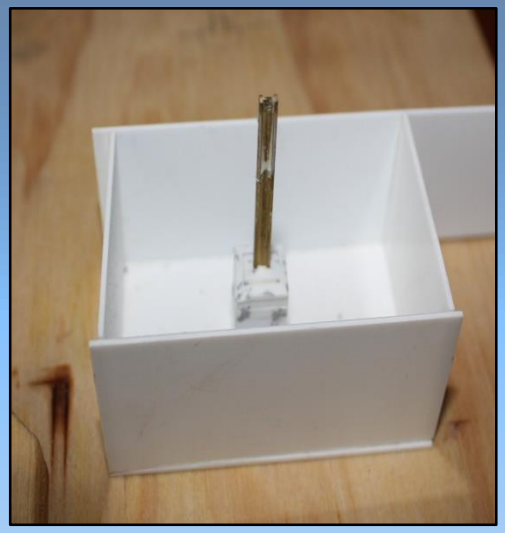


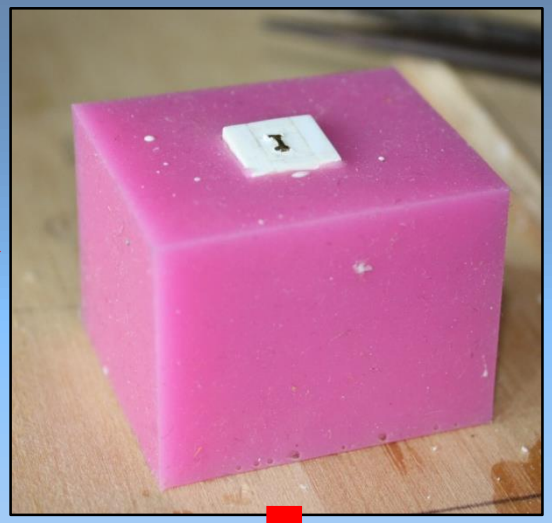
Cut at angle to solder to contact wire

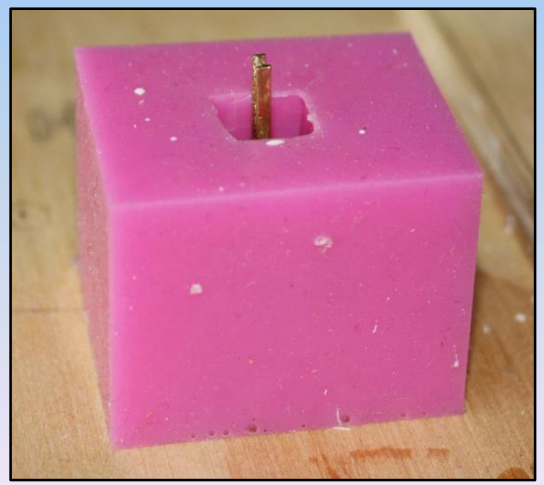
Tools Required for Cast Components

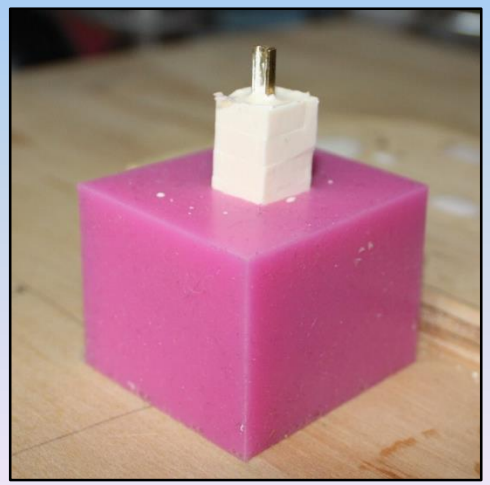
-1mm sheet Styrene
- MEK
- Various sizes Styrene strip and beam (to make the master base)
- Barnes Pinkysil
- Barnes Eastcast
- Stirring cups and sticks
- Offcuts of I beam
- 0.4mm brass wire
- Hobby knife

Stanchion Bases



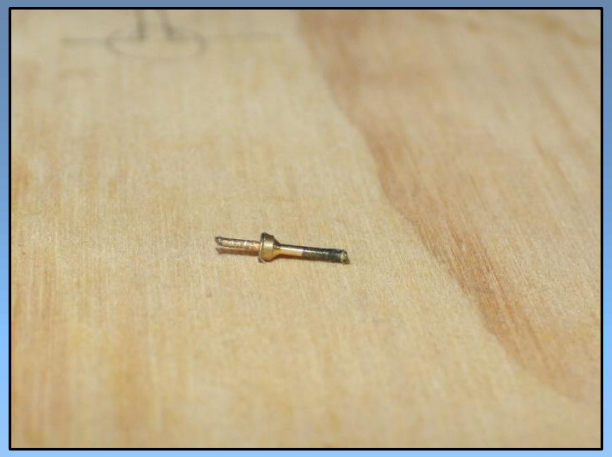


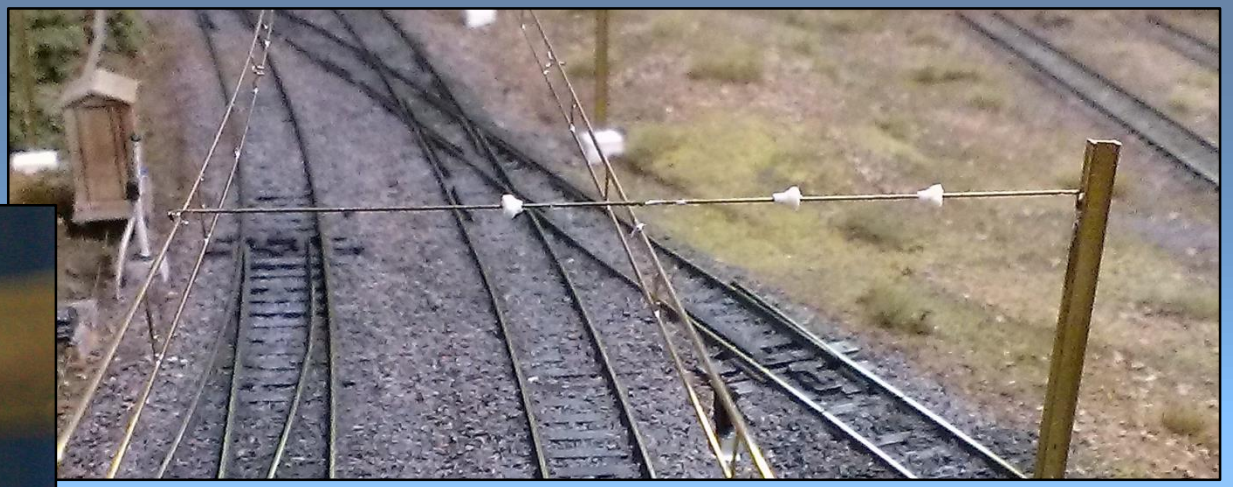


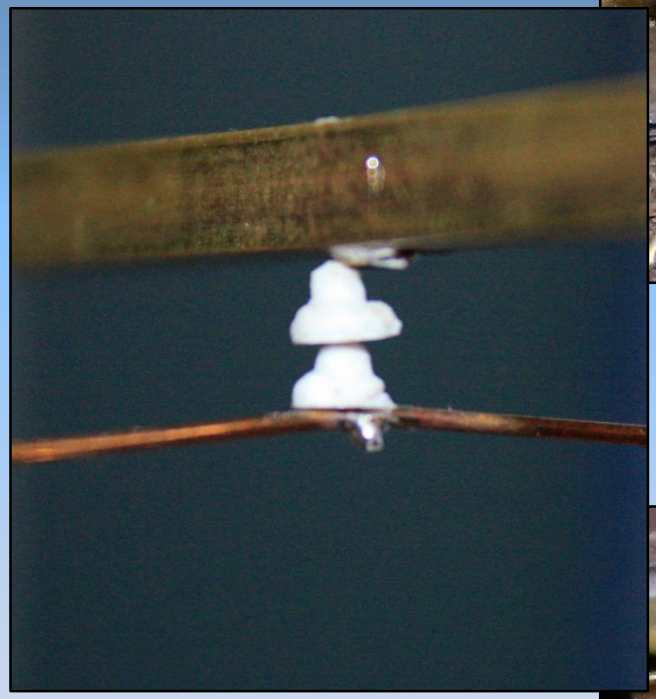



Easycast
Part B 225gm
Easycast
Part A 250gm
Barnes
EASYCAST
475g

Insulators







Tools Required for Cantenary

- Side cutters
- Pliers
- Flux
- Solder
- Soldering Iron
- Blu Tac
- Ruler
- Flat board as long as possible(plywood is ideal)
- Hobby screw driver or chisel point file

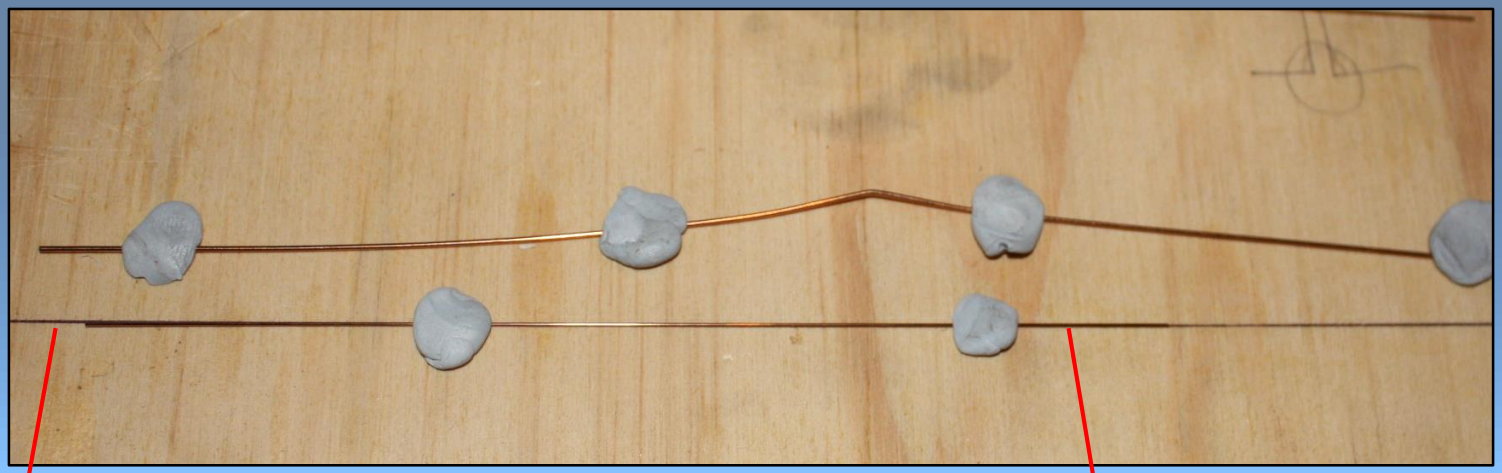
Materials Required

- Tichy Train Group Phosphor Bronze Wire

  0.025” and 0.032” diameter wire. They produce them in 3 foot lengths with 12 lengths per pack. Special order through Model Railroad Craftsman

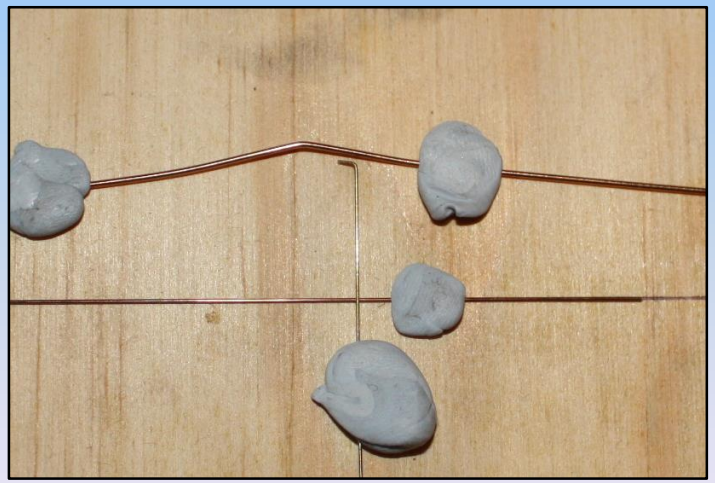
- Keiran Ryan 0.4mm and 0.6mm brass wire

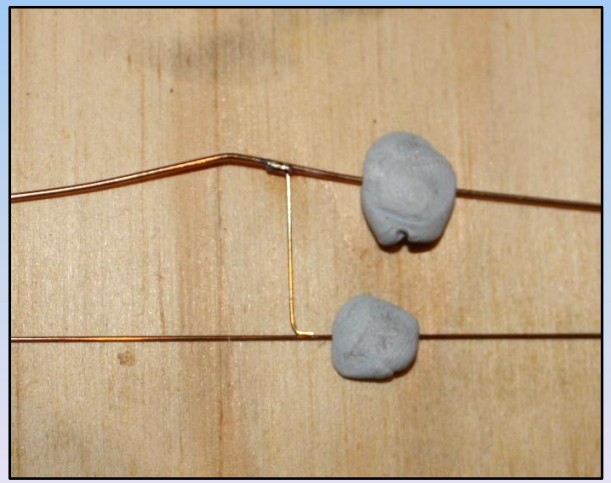
  Purchased directly from Keiran

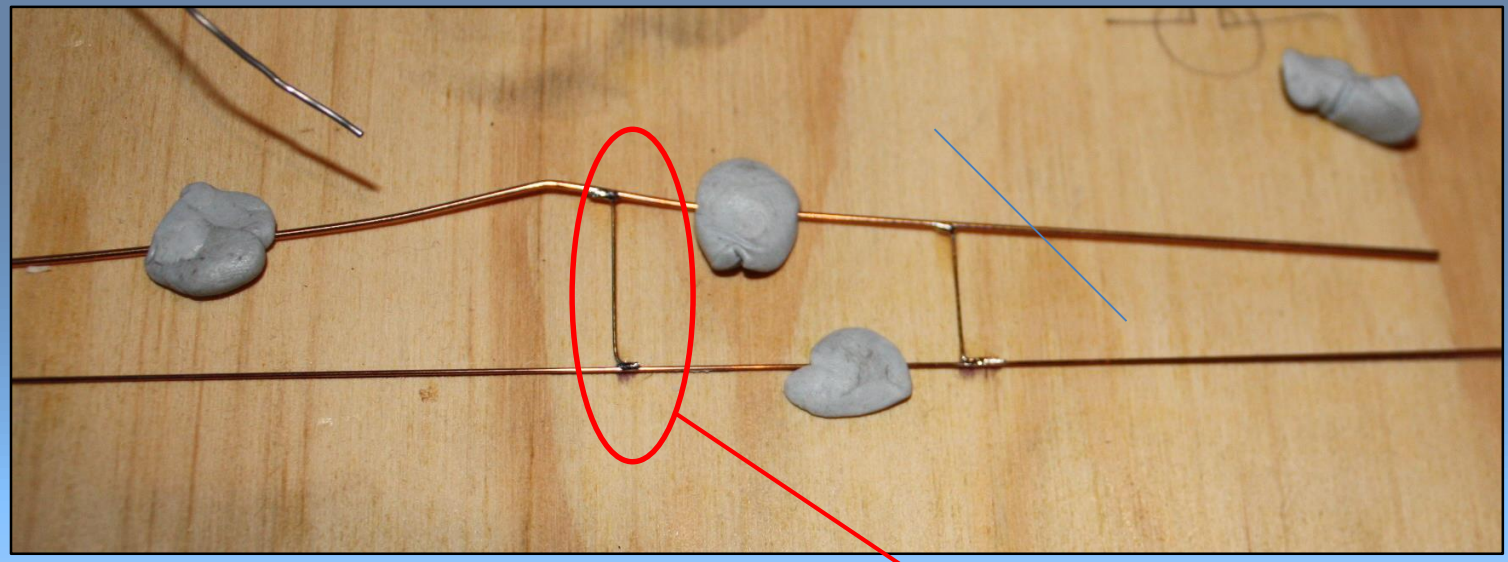


Line on board to keep straight

Contact Wire







Bent droppers at angle and solder. Make sure no solder on bottom of contact wire