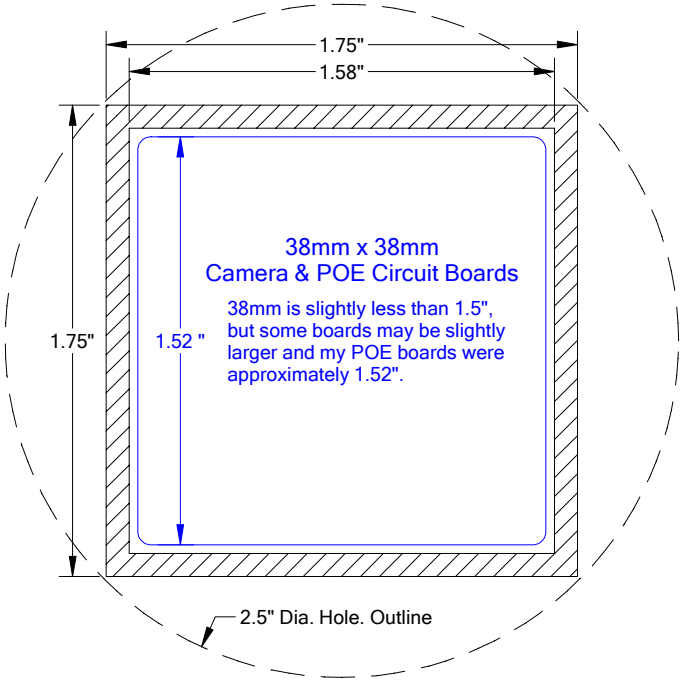
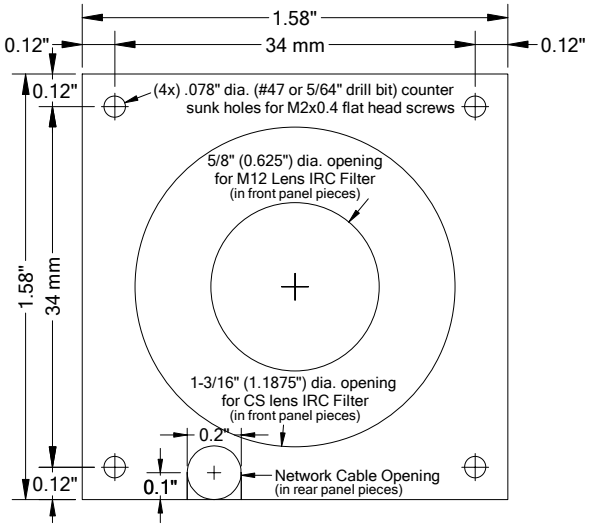
38mm x 38mm Home-Brew Camera Enclosures

Jan 14 / 2016

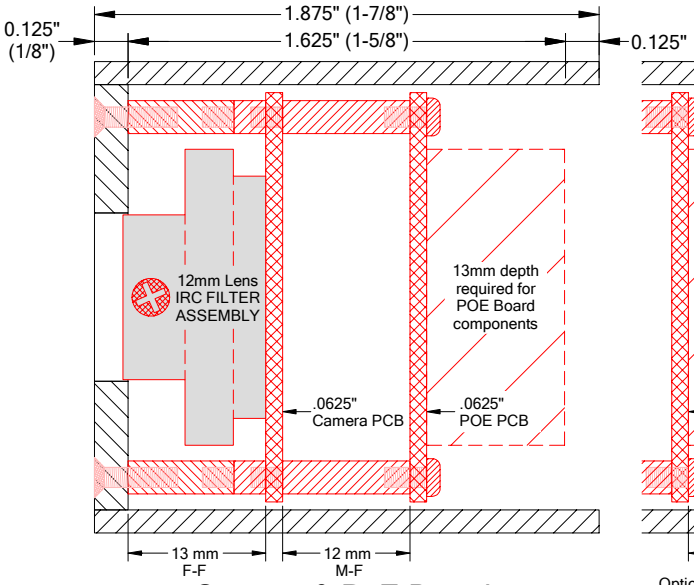




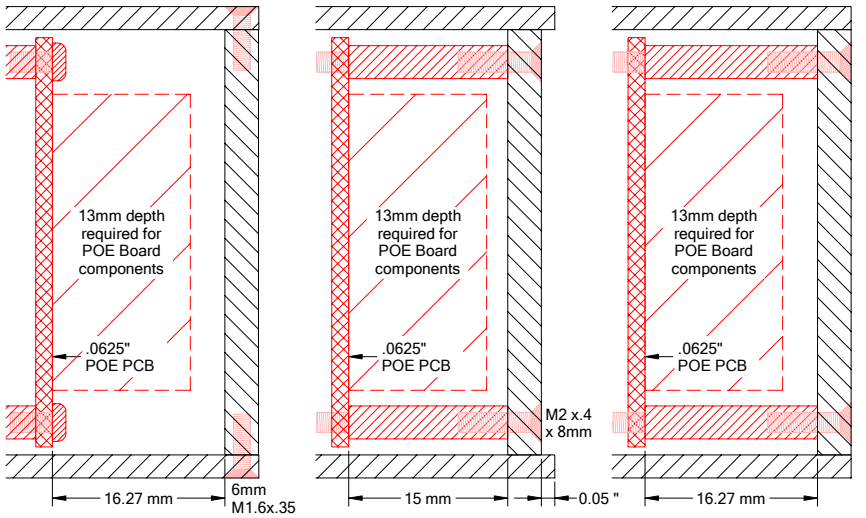
Enclosure Front & Rear Panels

Note: Cut panels slightly larger and sand down to remove cut marks and until 1.590" square.

After providing the required holes & cutouts, the front pieces are sanded down to the exact size needed for a tight fit when pressed into the square tubing and sand down the backs until they can be easily slid in and out of the tubing.



Camera & PoE Board
Minimum Depth Enclosure

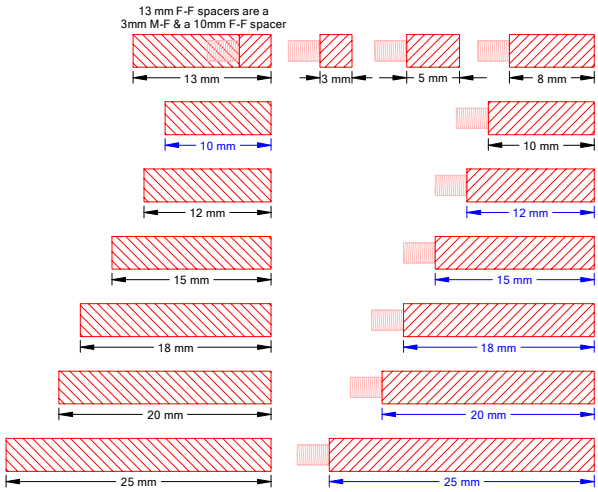


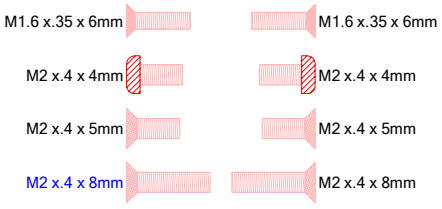
Option 1 - Drill & Tap enclosure and rear panel for M1.6 flat-head screws mid-way along each side.

Option 2 - Attach rear panel using (4) 15mm M-F spacers and M2x.4 flat-head screws.

Option 3 - Same as option #2, but with 18mm spacers cut to the length needed for the rear panel to fit flush.

Camera Enclosure Rear Panel Options





It never hurts to have a good selection of hardware to choose from when building things and shown here is what I had available while designing my enclosures, but those with BLUE dimensions are the only ones actually needed to build any of the enclosures.

M2 Brass Spacer & Screw Hardware

Home-Brew Camera Enclosures

Initial Enclosure Designs for M12 Lens Camera Boards

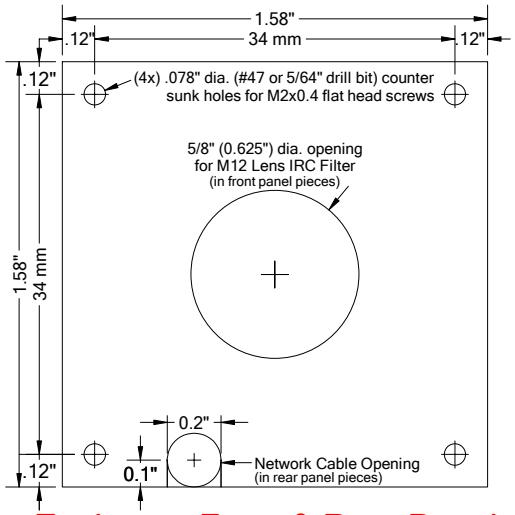
These are my initial M12 designs from which the enclosures on page 3 were made.

The finished enclosures differ in length from the designs as after cutting the tubing it was only sanded down until the cut marks were removed rather than continuing until the length matched any of the designs.

However the newer revised designs on page 4 that are now being used are better and should be used.

The designs are all basically the same except for length and the only differance between the initial and revised ones is that the revised no longer have a lens adjustment screw access hole and that a rubber seal has been added.

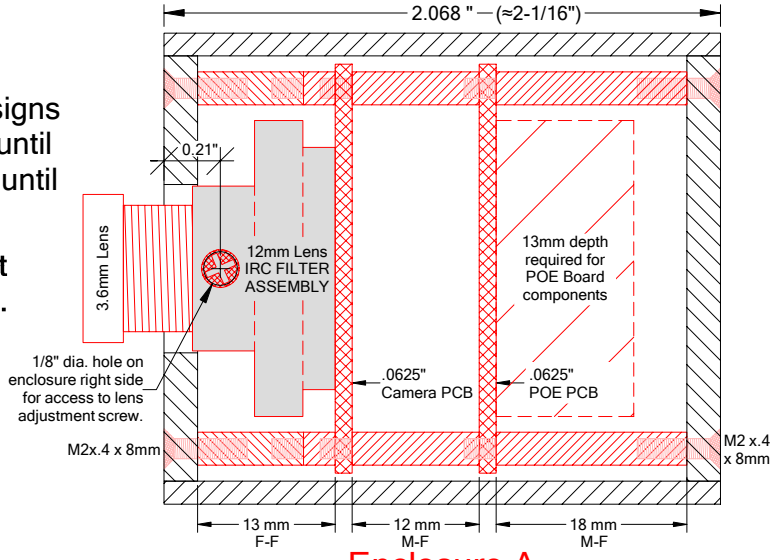
This PDF is a copy of the CAD file used to design and keep track of the different enclosures I've made and pages, like those with the enclosures I've made, are mainly for me and can be basically ignored.



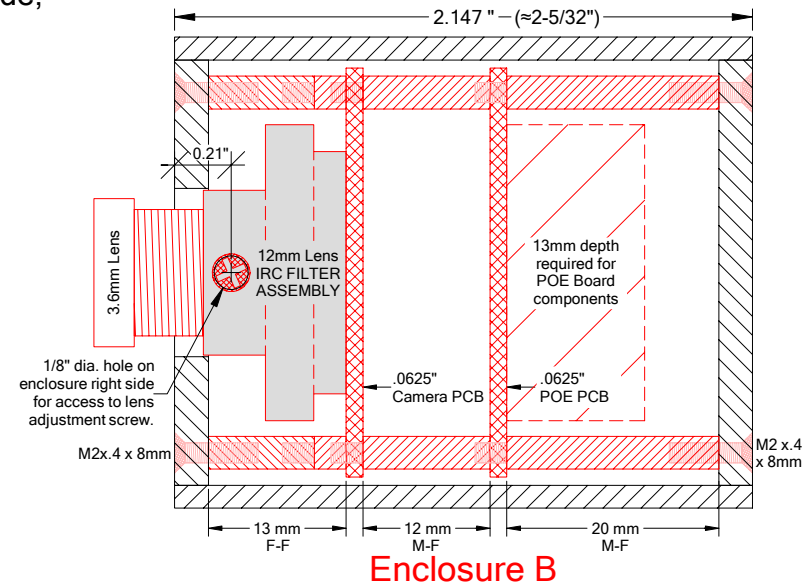
Enclosure Front & Rear Panels

Note: Cut panels slightly larger and sand down to remove cut marks and until 1.590" square.

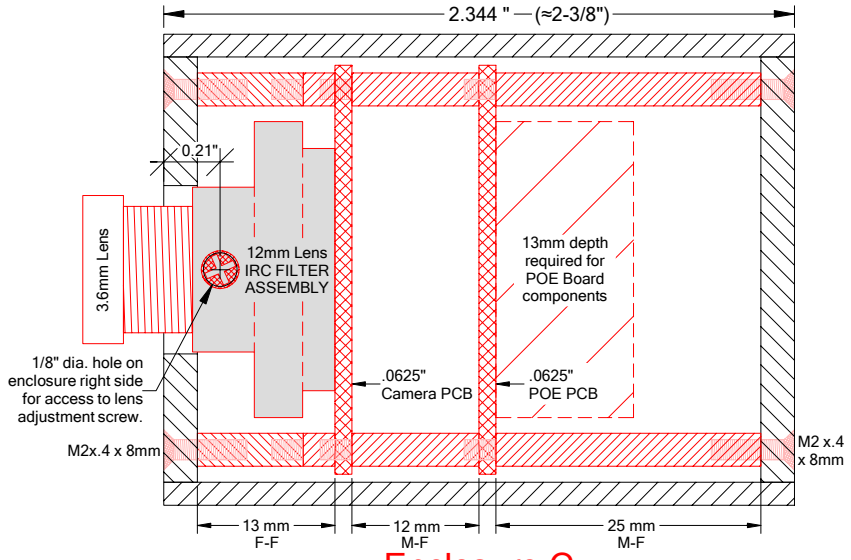
After providing the required holes & cutouts, the front pieces are sanded down to the exact size needed for a tight fit when pressed into the square tubing and sand down the backs until they can be easily slid in and out of the tubing.



Enclosure A



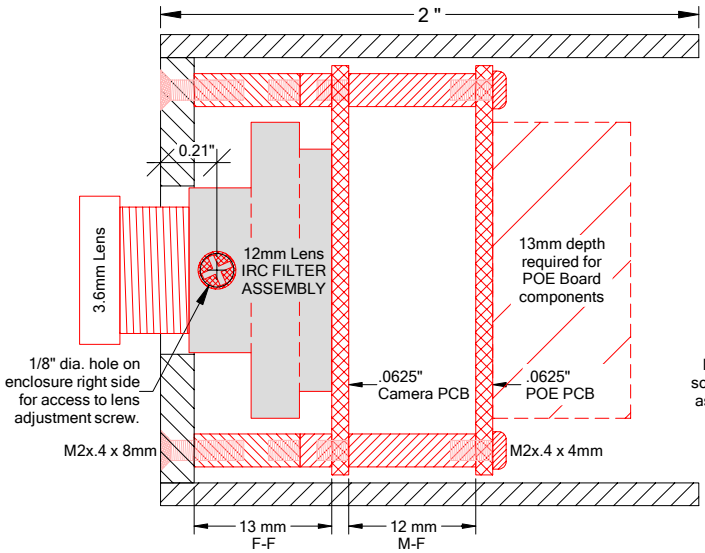
Enclosure B



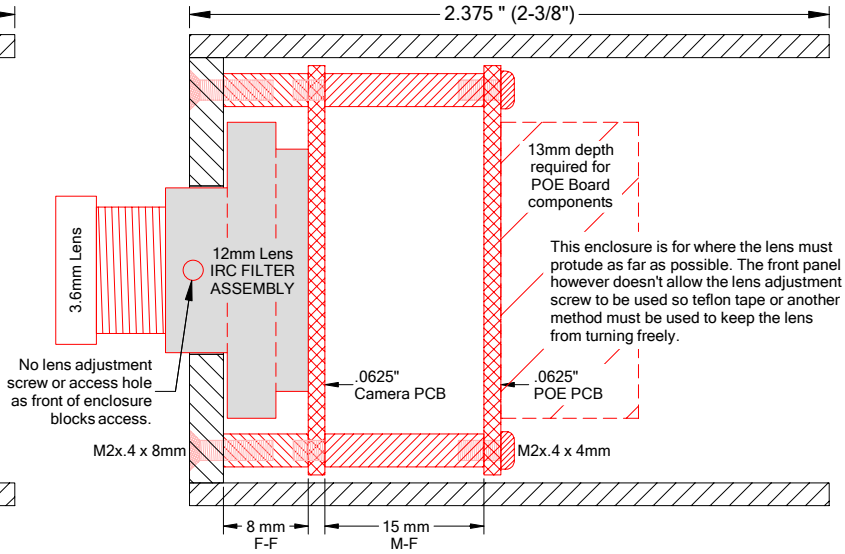
Enclosure C

Home-Brew Camera Enclosures

Initial Enclosure Designs Built for M12 Lens Camera Boards

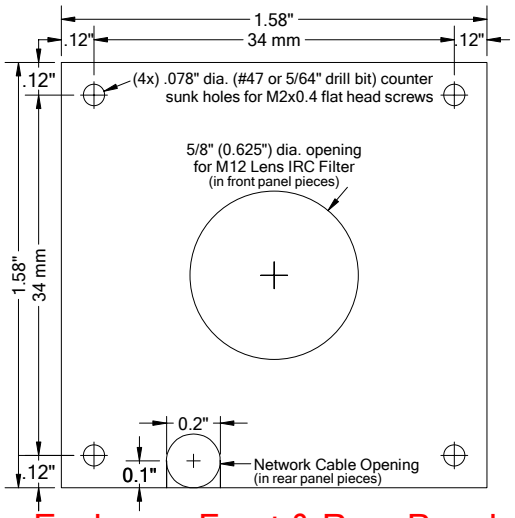


Enclosure A (Used for BCam 5 & 6)



Enclosure C (Used for BCam 4)

Revised Enclosure Designs for M12 Lens Camera Boards



Enclosure Front & Rear Panels

Note: Cut panels slightly larger and sand down to remove cut marks and until 1.590" square.

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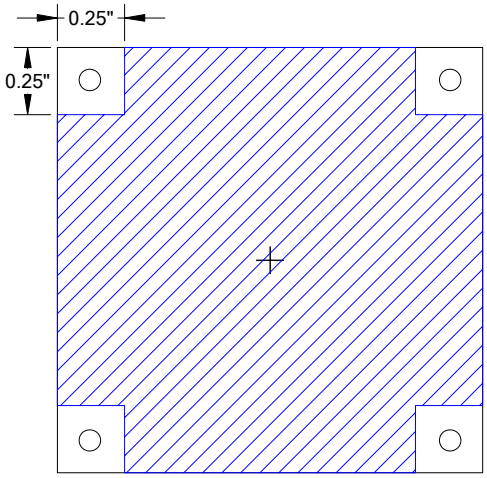
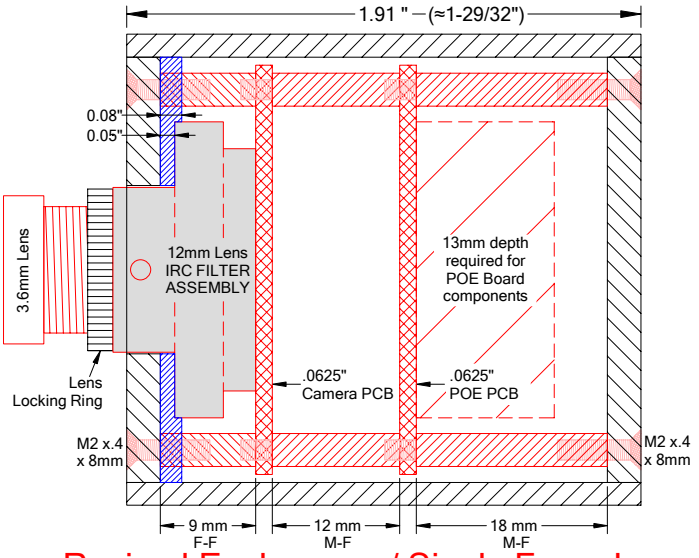


Foam Seal

** This drawing (right) with a single layer rubber seal was one of many made while working out all the details and coming up with the final design and before I decided to make the rubber seals twice as thick and was simply kept for referance and in case I ever decide to use a thinner seal for whatever reason and the drawing is needed.

Using a single layer seal would have reduced the enclosure lengths a bit and perhaps make adjusting the lens and use of the lens locking ring a bit easier, but it would have also required the first spacer to be < 10mm and > 8mm long which would have required making them from 10mm spacers.

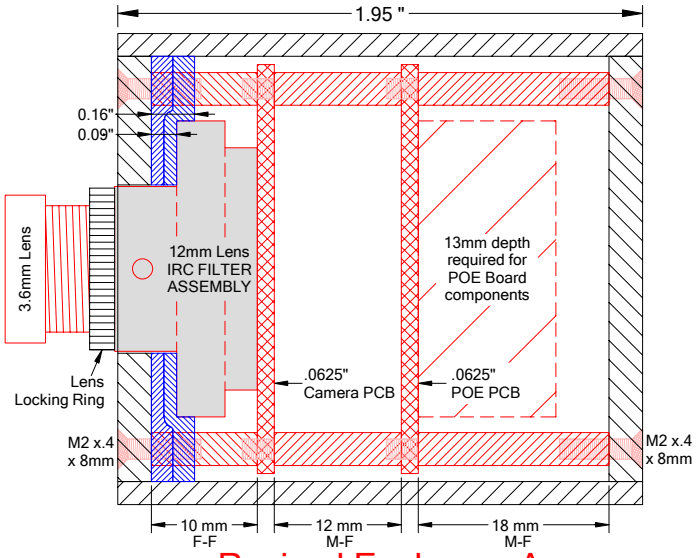
A thinner seal would also require more pressure than a thicker one to compress it the same amount which would stress the camera board even more.



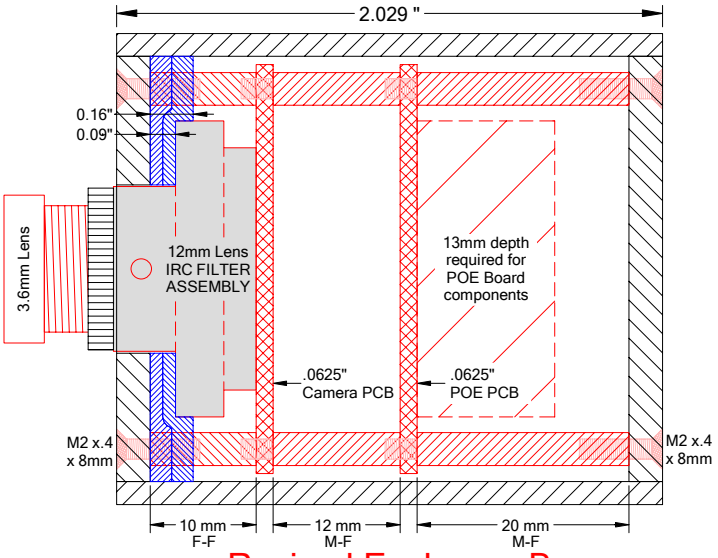
Revised Enclosure w/ Single Foam Layer

Home-Brew Camera Enclosures

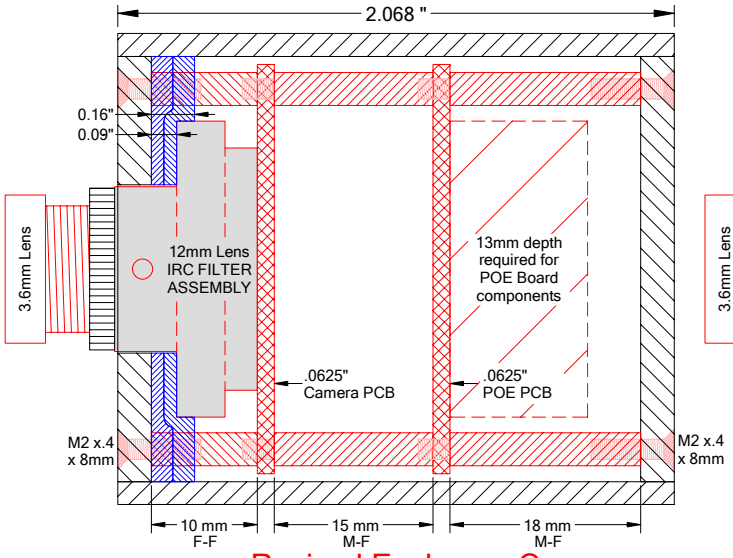
Revised Enclosure Designs for M12 Lens Camera Boards



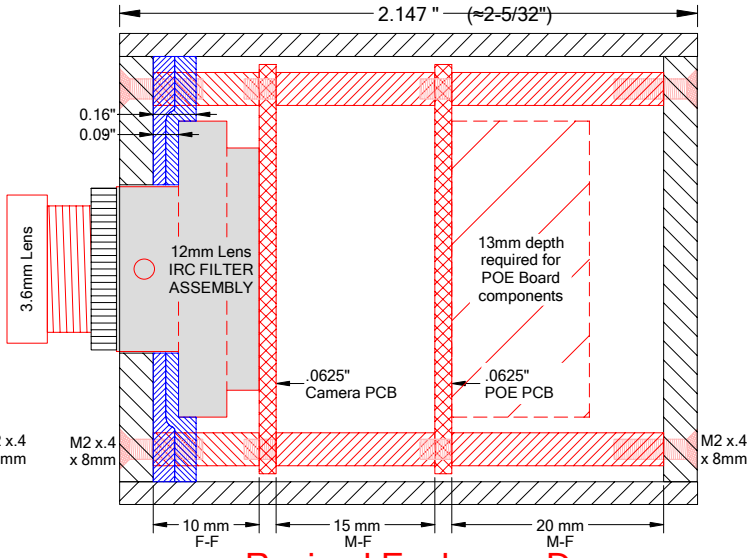
Revised Enclosure A



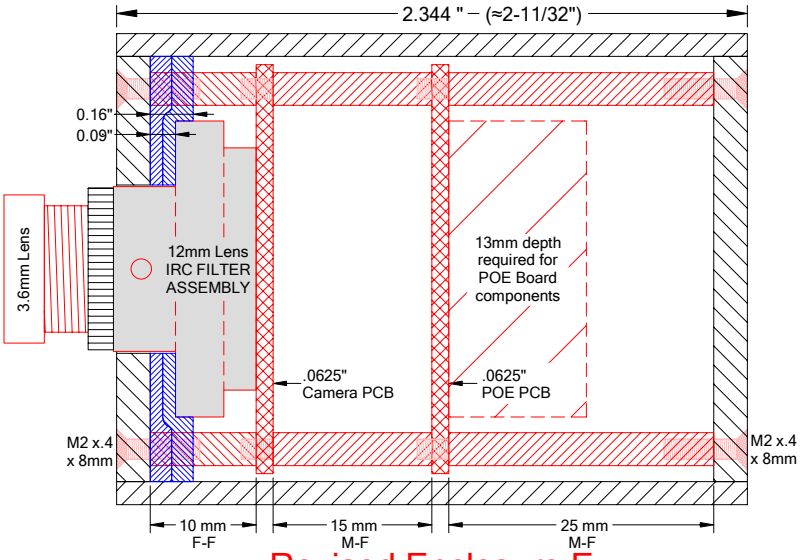
Revised Enclosure B



Revised Enclosure C



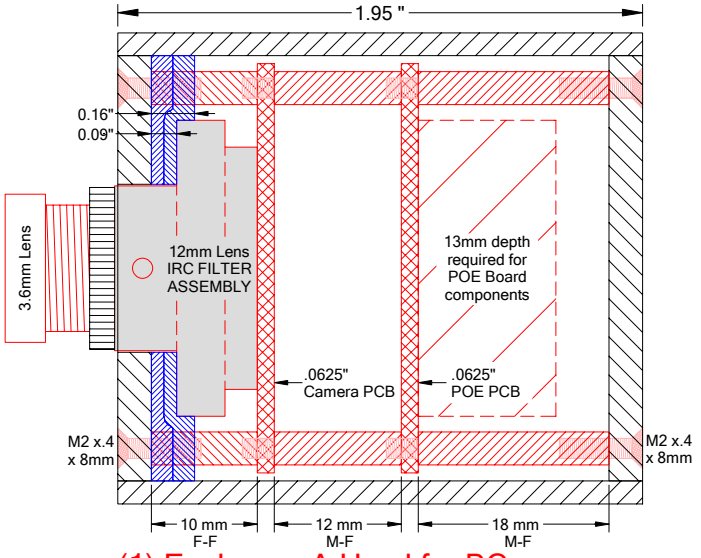
Revised Enclosure D



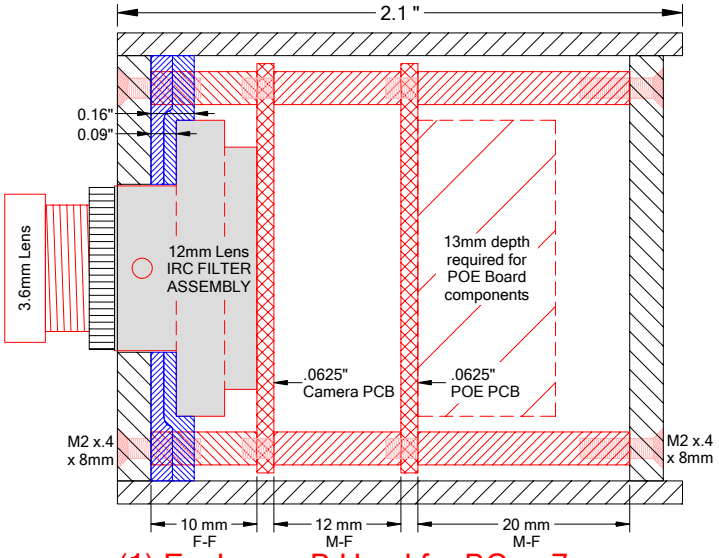
Revised Enclosure E

Home-Brew Camera Enclosures

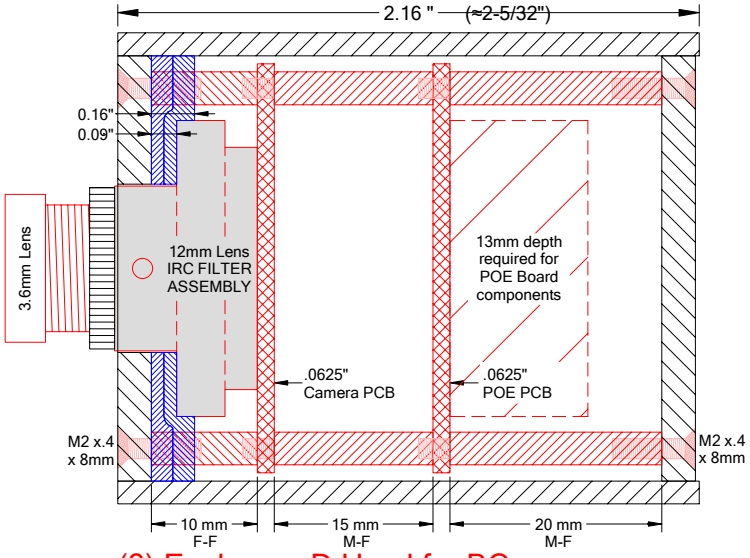
Revised Enclosure Designs Built for M12 Lens Camera Boards



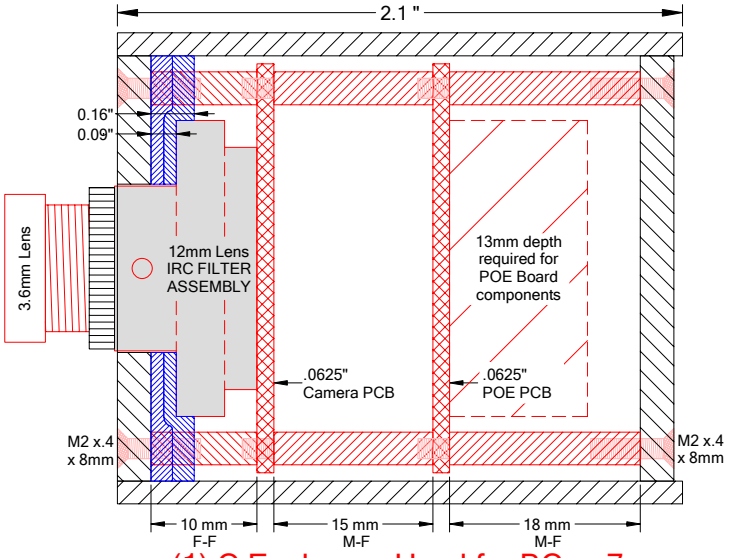
(1) Enclosure A Used for BCam__



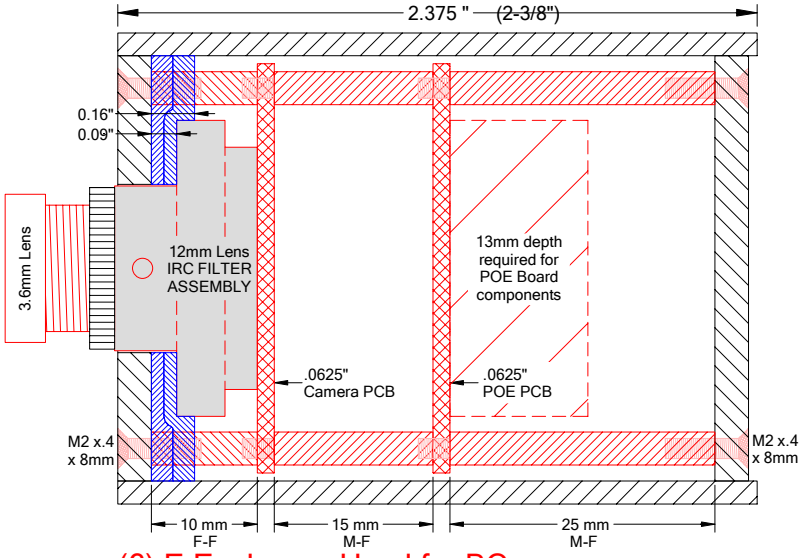
(1) Enclosure B Used for BCam7



(3) Enclosure D Used for BCam__



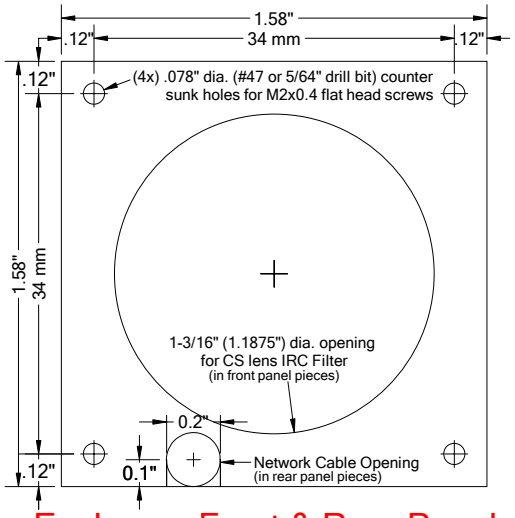
(1) C Enclosure Used for BCam7



(6) E Enclosure Used for BCam__

Home-Brew Camera Enclosures

Enclosures Built for CS and C Mount Lens Camera Boards



Enclosure Front & Rear Panels

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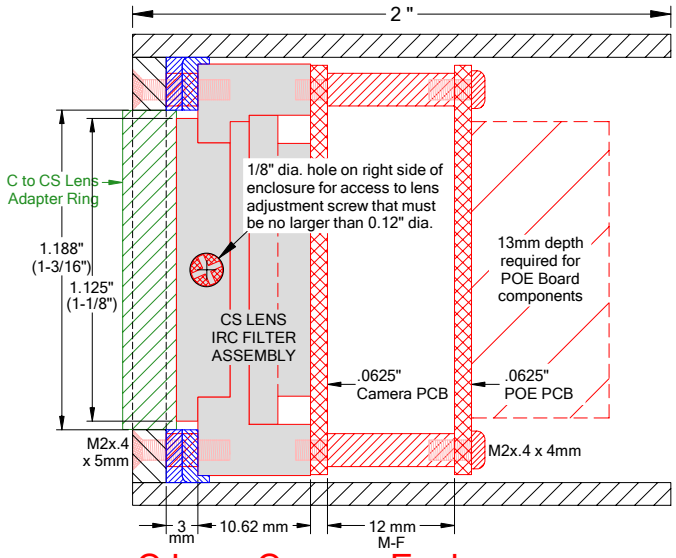
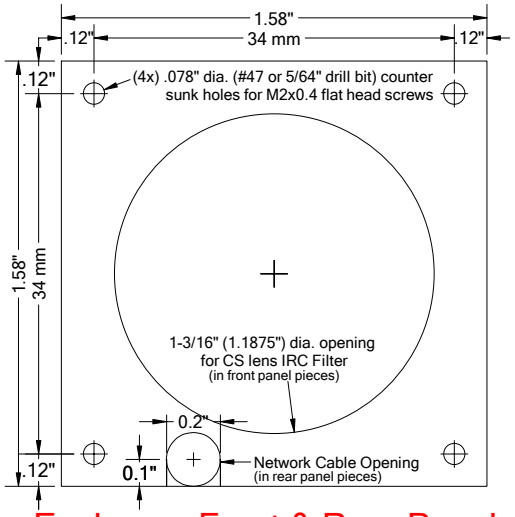


C Lens Camera Enclosure

(For CS Lens Boards w/ a C to CS Adapter Ring)



Enclosure Front & Rear Panels

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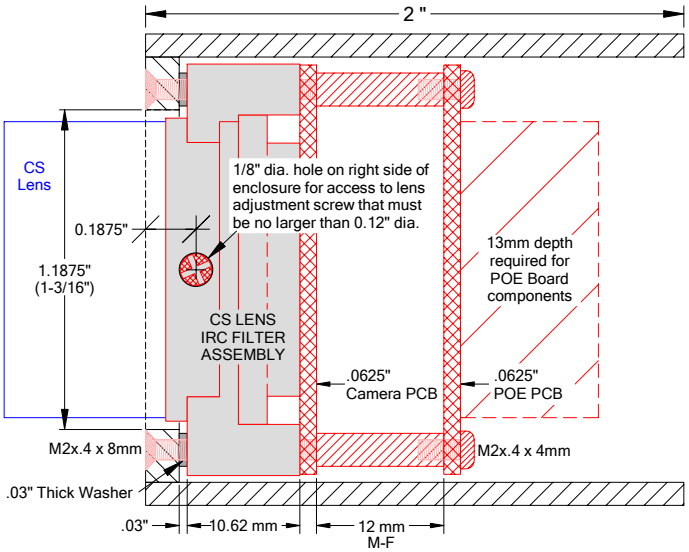
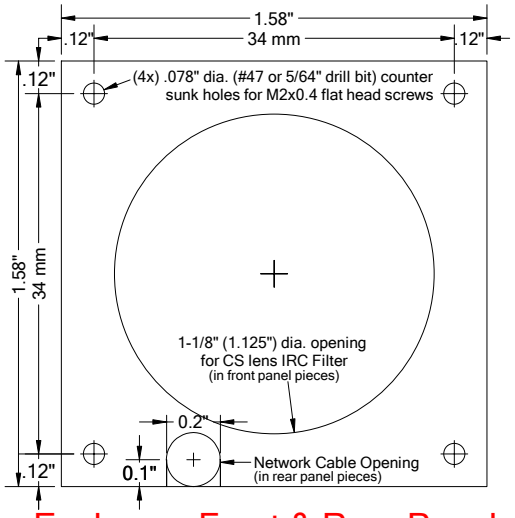


CS Lens Camera Enclosure

(Used for BCam 1)

Home-Brew Camera Enclosures

Enclosures Built for CS and C Mount Lens Camera Boards



Enclosure Front & Rear Panels

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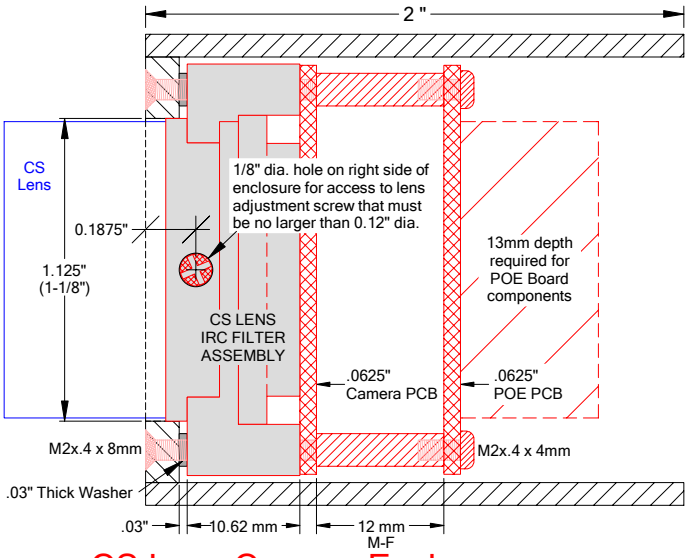
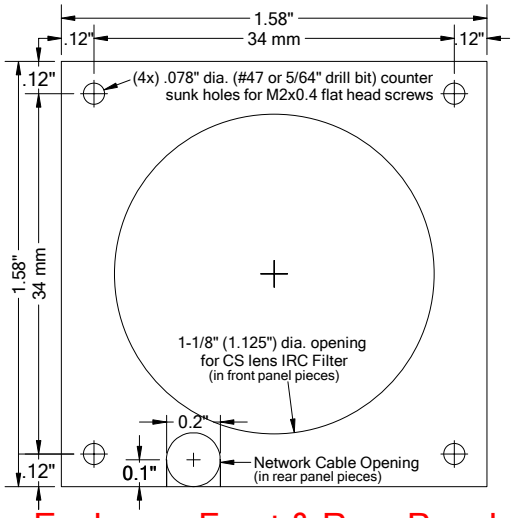


CS Lens Camera Enclosure

(Used for BCam 2)



Enclosure Front & Rear Panels

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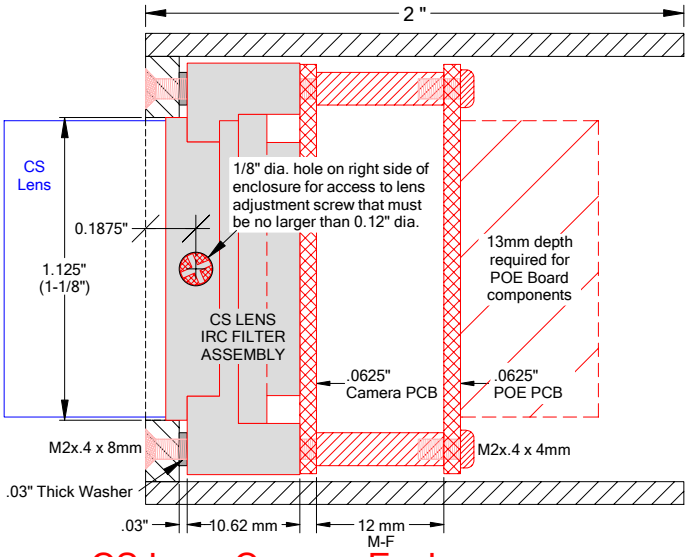

CS Lens Camera Enclosure

(Used for BCam 3)