

Mobile Picture Post Device

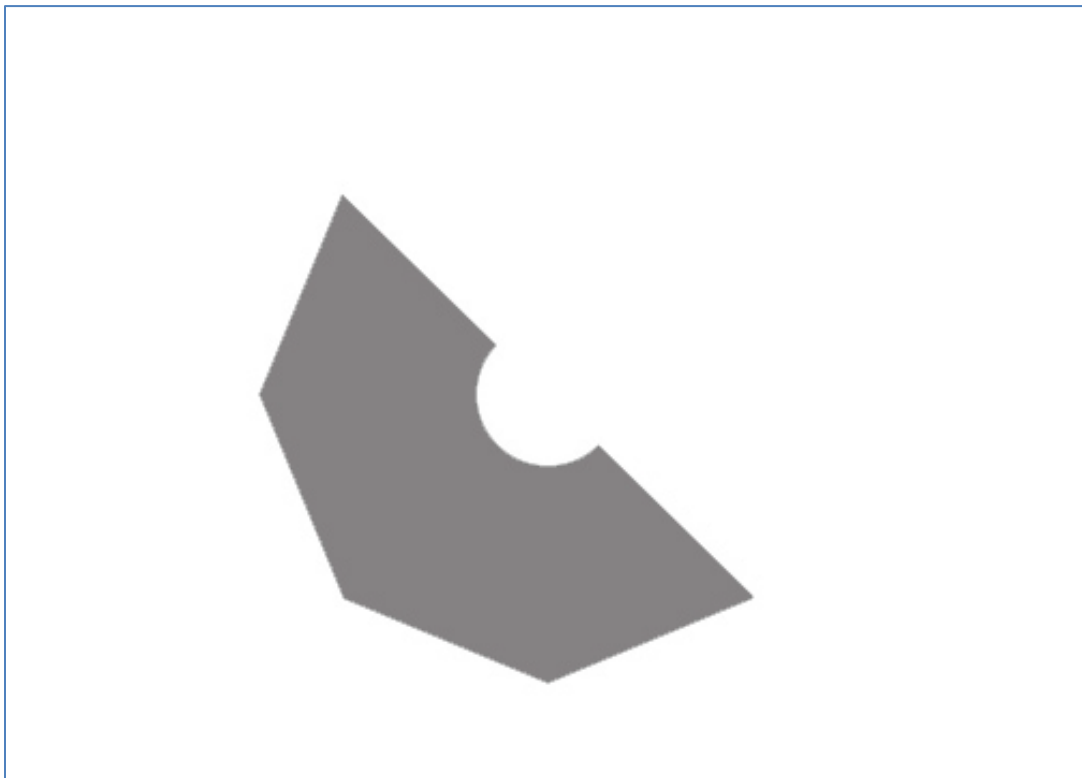
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Materials

- 1) Foam Board. I got it from my office, from old posters they were going to throw away. You can buy it in any handcraft store.
 - I chose this material because it is light, easy to cut but does not bend. Also, I do not have space for tools to cut wood, so I need something easy to cut and that will be sturdy.
 - If you have light plywood it would be great.
- 2) Duct tape (if you will use foam board): use it to put the different parts of the device together.
- 3) Glue
- 4) Xacto knife or cutting knife
- 5) Velcro wrap, the one that is self-adhesive
- 6) 1.5 feet of strap, the one used in the backpack straps.
- 7) Anti-slip tape. This one will be used to create a rough surface between the device and the sign post.
- 8) Cutting board

Basic Shape

The following image shows the basic shape we will use: it is half an octagon, divided by its diameter. The idea is to create half a normal platform and then rotate it.



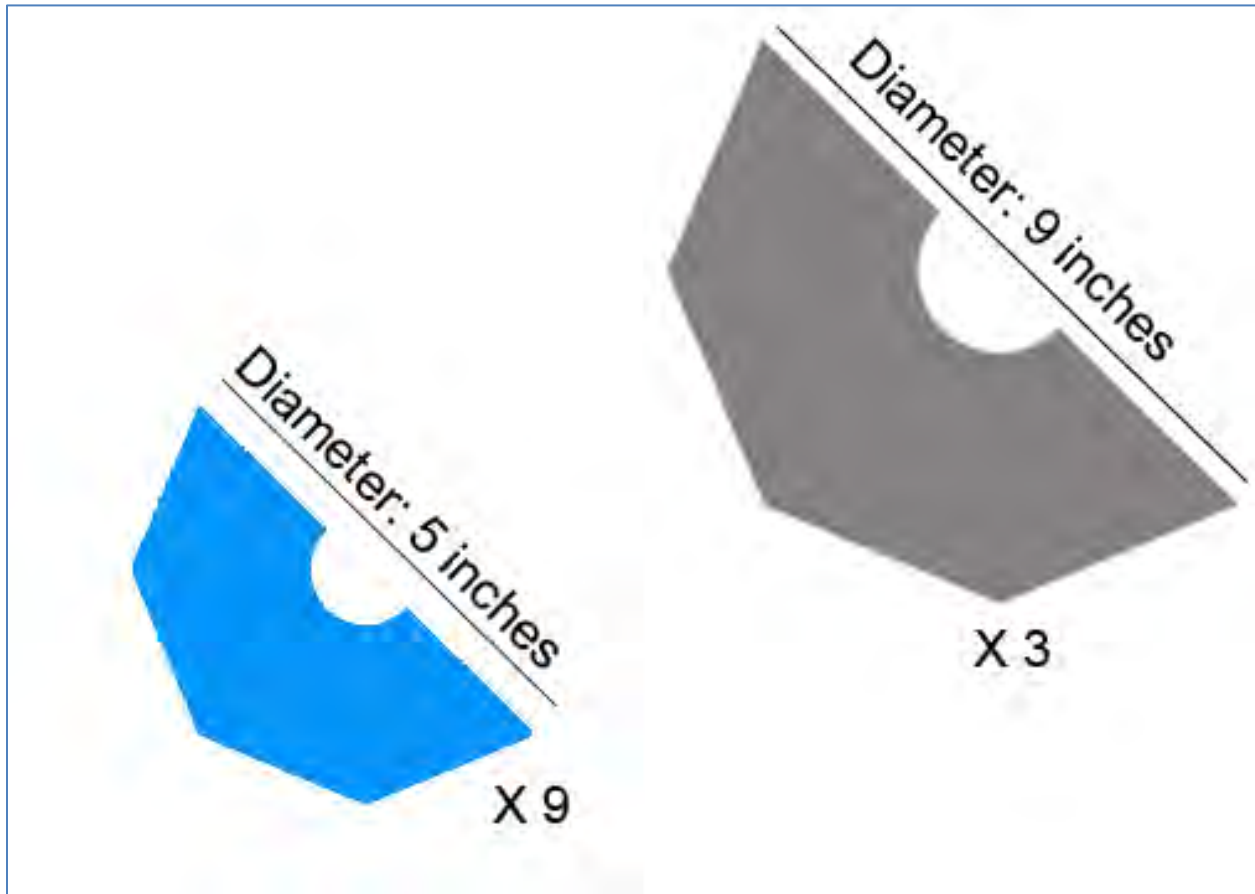
This shape has 4 sides. After taking 4 pictures you rotate it 180 degrees around the traffic sign post and then you get the other 4 pictures.

The central circle will be half a circle, with the radius of the traffic sign post.

Parts

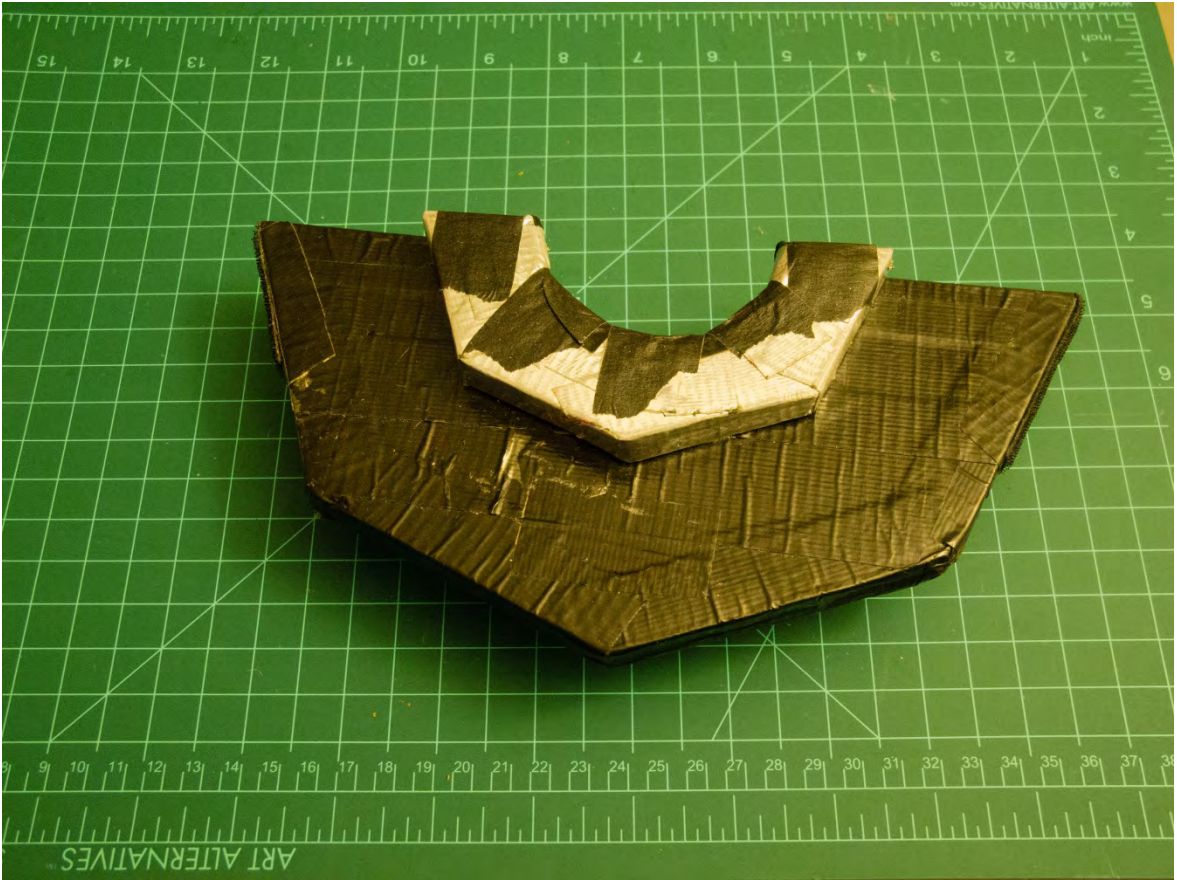
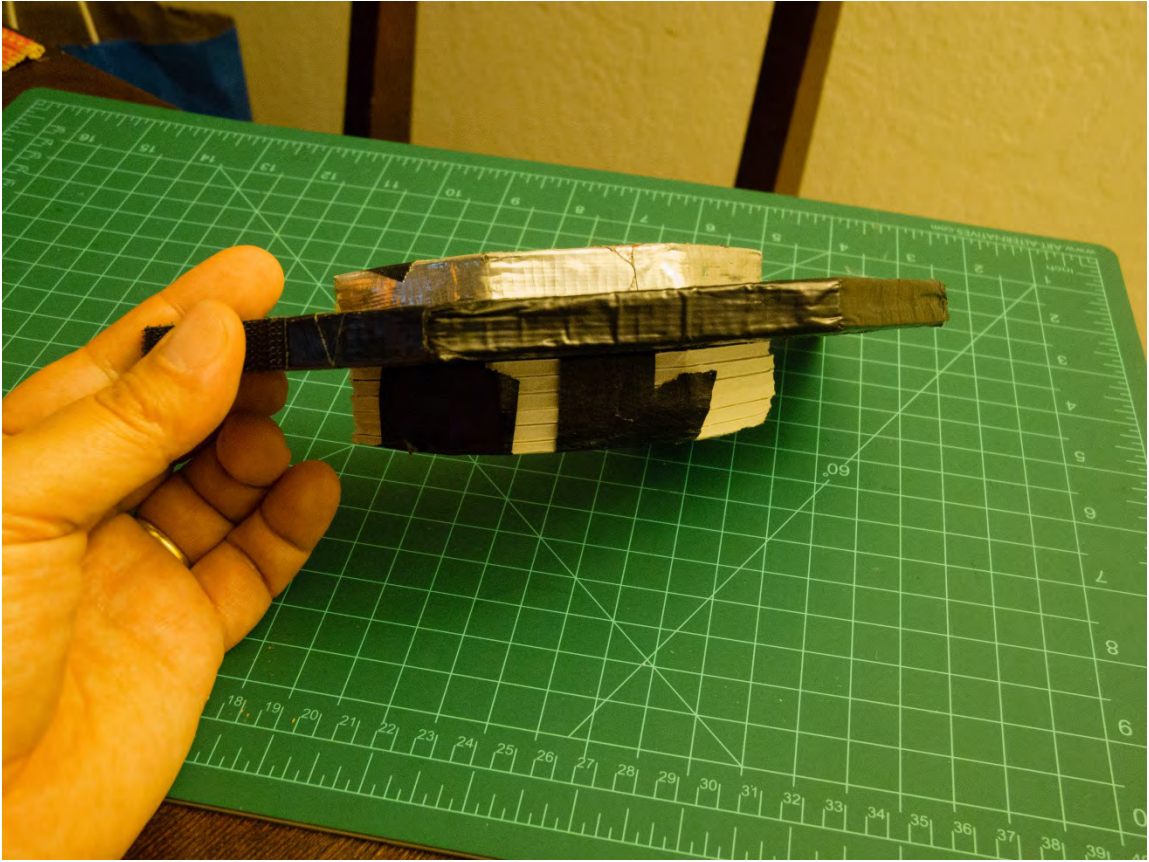
My prototype uses:

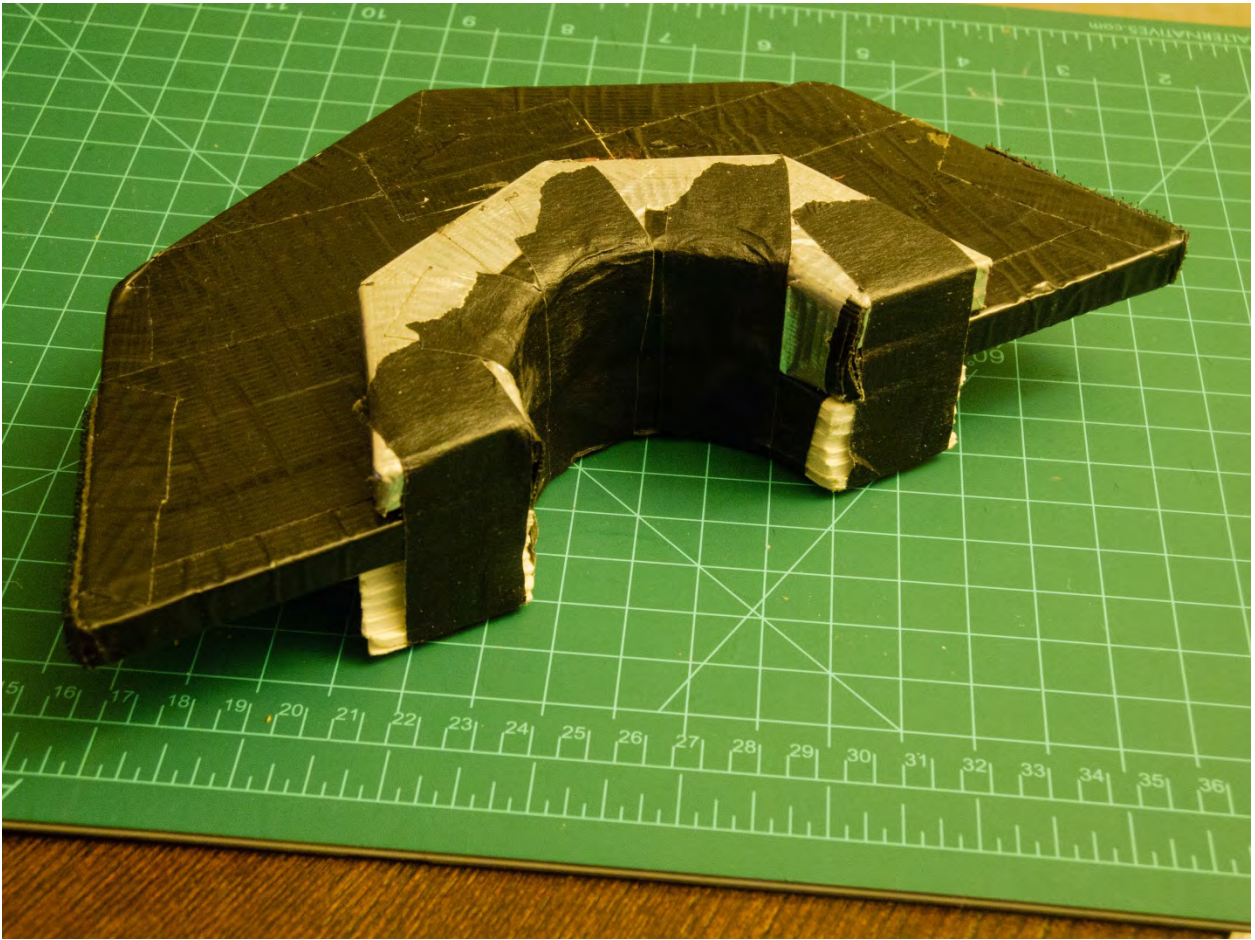
- A) 3 pieces of 9 inches in diameter
- B) 9 pieces of 5 inches in diameter



Building It

- 1) Calculate the diameter of the traffic sign post
 - a) Use a flexible metric tape or a piece of paper and measure the circumference of the traffic sign.
 - b) Using basic geometry, the circumference (C) is $C = 2\pi r$, then $r = \frac{C}{2\pi} = \frac{C}{2 \times 3.14}$
 - c) Please add 1/64 inches more to the found radius, to allow space for the duct tape, or "just in case". Later you can add duct tape to make a better fit with the post.
- 2) Cut the pieces from the selected material.
- 3) Put together the 3 bigger pieces and wrap them with duct tape. You will be surprised how sturdy 3 layers of foam board can be when put together.
- 4) Put 3 of the smaller pieces and wrap them in duct tape. This group will be set on top of the bigger piece, to make the place where you set the camera back.
- 5) Put the other 6 smaller pieces together and wrap with duct tape. This group will be put on the bottom of the bigger piece and will be used as support against the post to avoid the top part to fall because of the weight of the camera.
- 6) Use glue to put the pieces together, aligned by the inner circle.



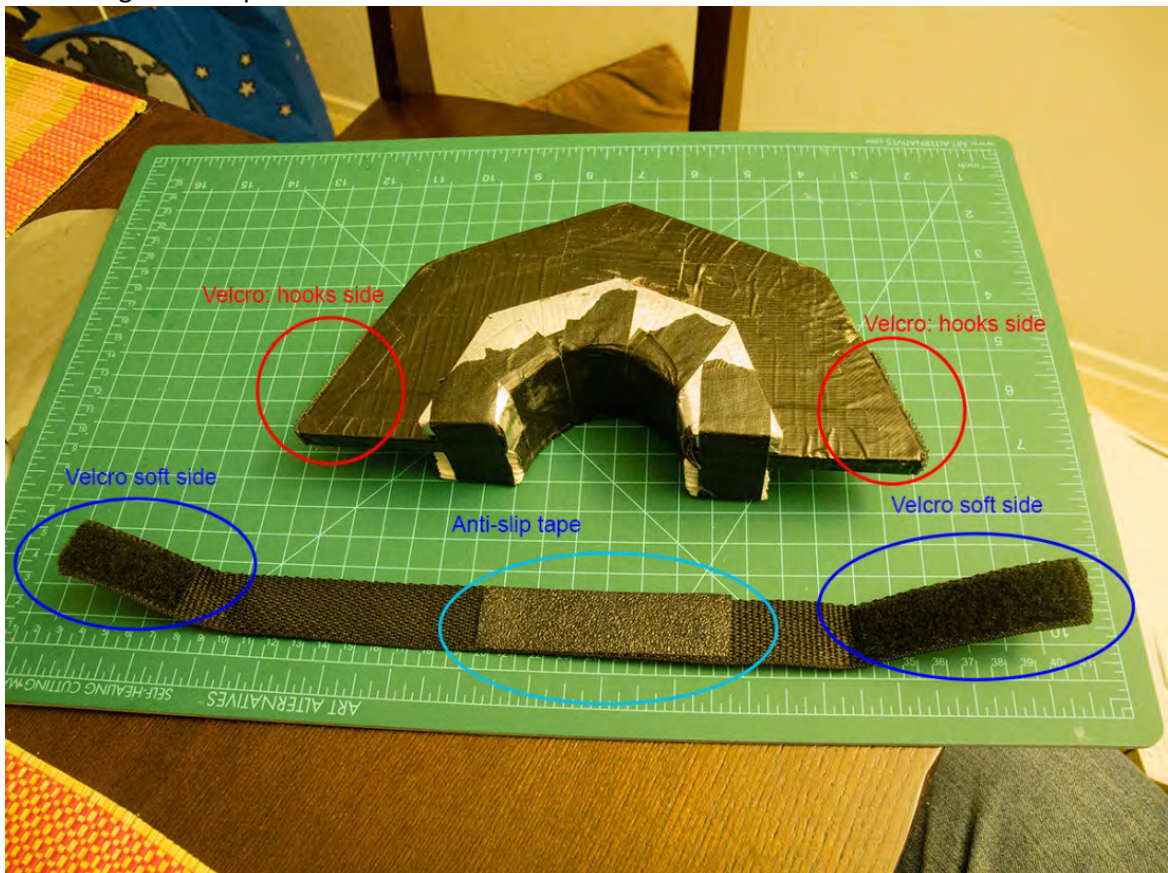


- 7) Let's put the Velcro in the device as a fastening belt, to set it around the post.
 - a) Put the hard part, not the "hairy and soft" part, on the external borders of the big piece.



- b) Cut a piece of around 15 inches of strap. Put the "hairy and soft" part of the Velcro on the tips of this strip.

- c) Put a piece of anti-slip tape in the middle of the strip. This is the rough surface to help the grip of the belt against the post.



Using it

- 1) Locate the post.
- 2) Wrap the device around the post and locate the North, at a waist or higher height, something comfortable to you.
 - The first time using it you may need to add some duct tape or masking tape to fill in the inner circle, to make it tighter.
 - If the device is too loose the pictures may end up with very different upper or lower angles between each photo session.
- 3) Align one tip of the device with the North.
- 4) Mark the North and height. Use a hard tool (small screwdriver or pocket knife) to make a 90 degrees mark: for the height to use and the location of the North. Use a sharpie to highlight the mark.
 - It is important to make a really hard scratch on the post as the wind, sand, rain and sun will erase the sharpie mark and it will be difficult to find again.
 - Otherwise, find the North again, by the compass or by comparing the location with other pictures already taking from there.
 - This is the most problematic point of this method as the marks tend to fade if you do not mark them again.
- 5) Take the 4 shots and when done loosening the strap a little, rotate the device 180 degrees, to complete the other half of the circle and the other 4 shots.
 - Do not forget to take the sky shot.