HOW I CONSTRUCTED MY LIGHT SHIELD

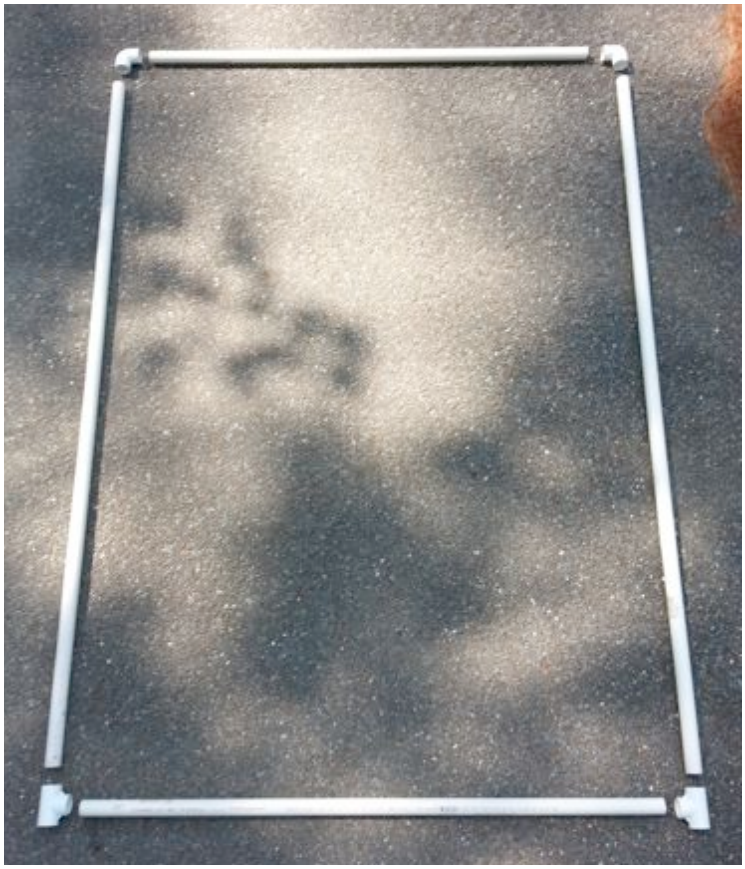
1. Measuring the dimensions needed

To make a light shield large enough to screen my telescope, I measured its height when raised towards the zenith and added an extra foot (6 feet). I then measured the distance between the zenith position and the eyepiece location when the scope is aimed towards the horizon (4 feet). My completed light shield would therefore comprise a 4 by 6-foot frame.

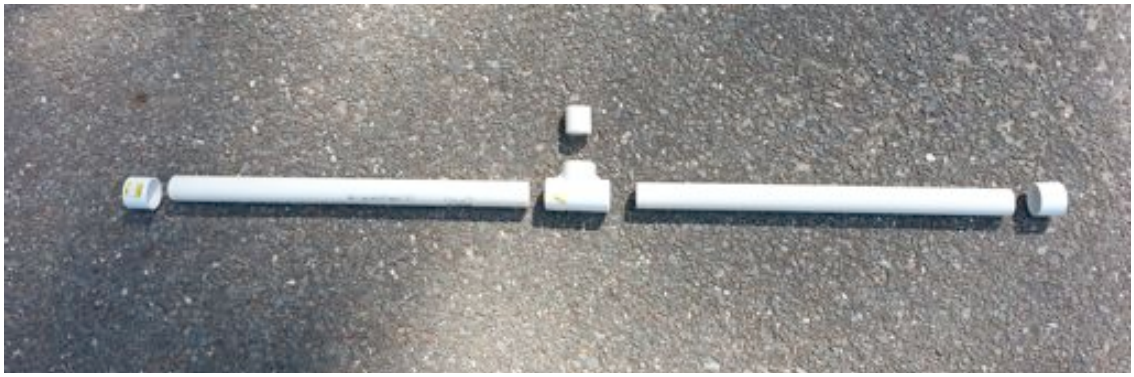
2. Purchasing the materials

Because portability was a critical factor, I chose to work with 1-inch diameter PVC plumber's pipe and non-threaded "slip-in" fittings (90^{o} elbows, tees, and end caps).

3. Constructing and assembling the Shield

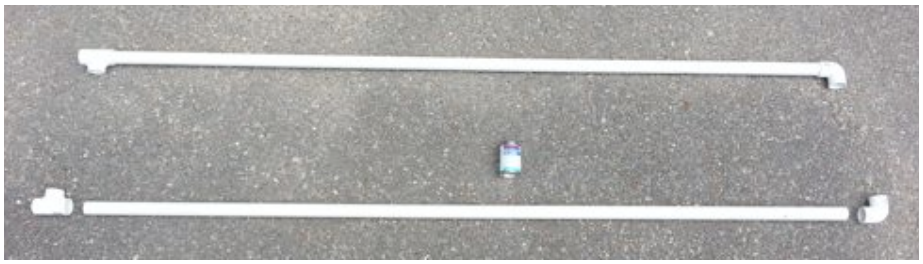


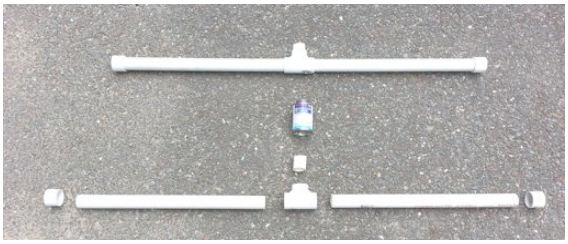
The frame was comprised of two 6-foot sections of pipe for the sides and two 4-foot sections of pipe for the top and bottom, connected at the top by 90^{o} elbows and at the bottom by tees.

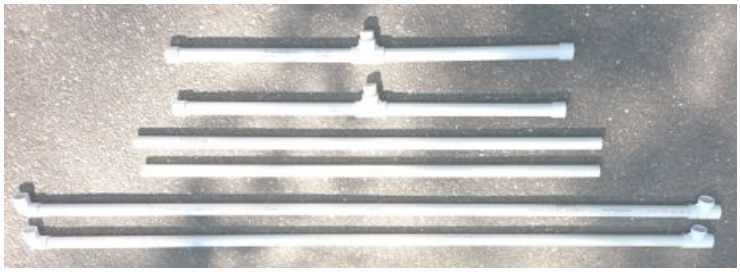


Each of the support struts was made up of two 2-foot sections of pipe joined by a tee and bracketed with end caps. A 2-inch piece of pipe was fitted into the top of the tee. This would connect the strut to the tee at the bottom of the frame.

The disassembled frame consists of 20 pieces. To avoid the risk of arriving at a star party minus a few key pieces I glued the elements (6-foot pipe, elbow, and tee) comprising each of the sides of the frame, as well as the component parts of each support strut.







The frame now consists of 6 pieces which fit easily in the back of my car.

The light shield was made from a tarp with dimensions slightly larger than the frame (in this case, 7 X 5½ feet). After draping the tarp over the frame, I secured it with three 30-inch bungee cords, inserting the hooks at the end of each cord through grommet holes in the tarp.

The completed light shield