

Assembly Instructions for the 1.25" PVC Ra Apex Connector

Please note: This connector piece is made from 100% all-natural plant-based PLA plastic. While it can handle being outside in the weather just fine, it could potentially warp in extremely hot weather if left out in the direct sun for prolonged periods of time. Partial shade should be fine.

You will need four 1.25" PVC pipe of any length that you desire, as long as they are all the same. In the United States, there is regular pipe and what is called schedule 40 PVC pipe. While both styles have the same outside diameter and will work just fine, I recommend schedule 40, as it has a thicker wall and will therefore be stiffer. 1.25" PVC pipe has an outside diameter of 1.66", which, if you are in a country that uses the metric system, that is equivalent to your pipe having an outside diameter of 42.164mm. If you can find pipe that has an outside diameter of 42mm, that should work well, but you have to make sure it is the *outside* measurement, because just like in the United States, what the size of your pipe is labeled as may be different from its outside diameter actually is.

I suspect many people will just use the standard 10-foot long PVC pipe for their pyramids so they don't have to cut it. If you do decide upon a different length and you need to cut your pipe, I would **strongly** encourage you to use a pipe cutter designed for that purpose instead of using a hacksaw or a miter saw. Not only will it result in much cleaner cuts and will allow your pipe to insert into the holes easier, but it will also significantly reduce adding more microplastics into the environment, which, by the way, can now be found in every part of the body, in almost every human on the planet. You can purchase a pipe cutter on Amazon designed to easily cut through pipe of this size without leaving any microplastics in the environment for less than \$10 here: <https://amzn.to/3Es8mhn>

After you have your PVC pipe cut to the right length (if needed), I recommend following the steps below to level, square, and align your pyramid so it can be the most effective. But if you want to quickly set up your pyramid, just make sure the ends of the pipe insert into the holes with a little bit of friction. If they are loose, they probably won't be at the right angles. There is a good chance they will fit fine, but if they seem excessively loose, you can stiffen them up by adding one or more layers of duct tape. Then you can go to the > on page 7.

But if you want your pyramid to be as effective as

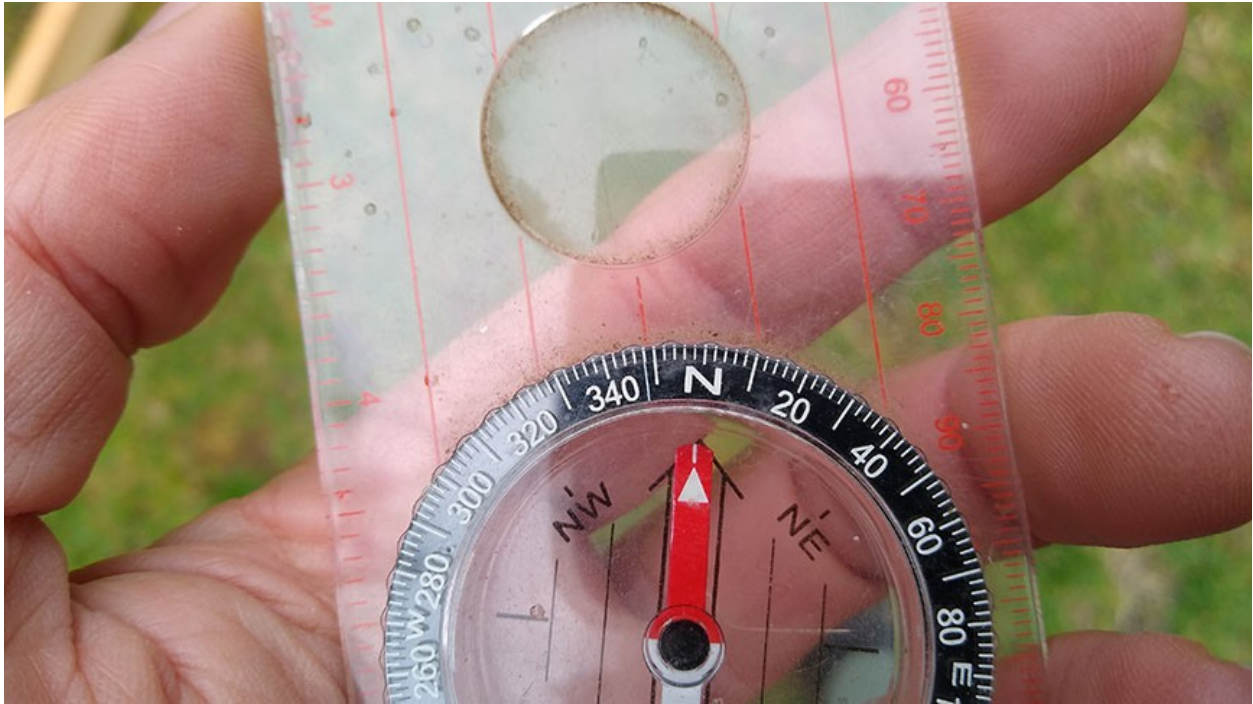


possible, then you will want to make sure it is level, square, and aligned to either true or magnetic north. The best way to align it is to use a 2x4 or a similar piece of wood cut (or marked) to the width of your pyramid. To calculate this, divide the length of your PVC pipe by 1.115 and then add 2.49" (63mm). So, for example, if you were using 10-foot (120") pipe: $120" / 1.115 = 107.623"$. Then add: $107.623" + 2.49" = 110.113"$ (or about 110+1/8"). **So for 10-foot PVC pipe, mark or cut your 2x4 to 110+1/8"**. This measurement is to the outside edge of each PVC pipe once the pyramid is set up. Because that that would mean that you would need to buy a 10-foot-long 2x4, I realize that you might not want to buy one just for that purpose. If you were to simply make a relatively light pencil mark at that measurement instead of cutting it, you would probably be able to return it at most lumber yards when you are finished using it.

If you want to align the pyramid to magnetic north, set the bezel ring of the compass to 0°. You can see the thin white line going through the "N" on my compass in the picture below:



If you want to align it to true north, go to www.magnetic-declination.com to find your declination. If it is, for example, +12°E, then rotate the bezel 12° *to the right, or clockwise*. In the picture on the next page, you can see that after rotating the bezel to the right, the little white line of my compass is 12° *to the left* of the N, at 348°. (The bezel is in 2° increments, so six ticks to the left of "N".)



As another example, if it is -14°W , then rotate the bezel 14° to the left, or counterclockwise:



Next, pushing the baseplate of the compass against your 2x4, align it so that the red magnetic needle matches the arrow on the baseplate. Make sure there is no metal within 6 feet of the compass, including phones, watches, jewelry, glasses, keys, etc. In the example on the next page, the compass is set to -14°W :

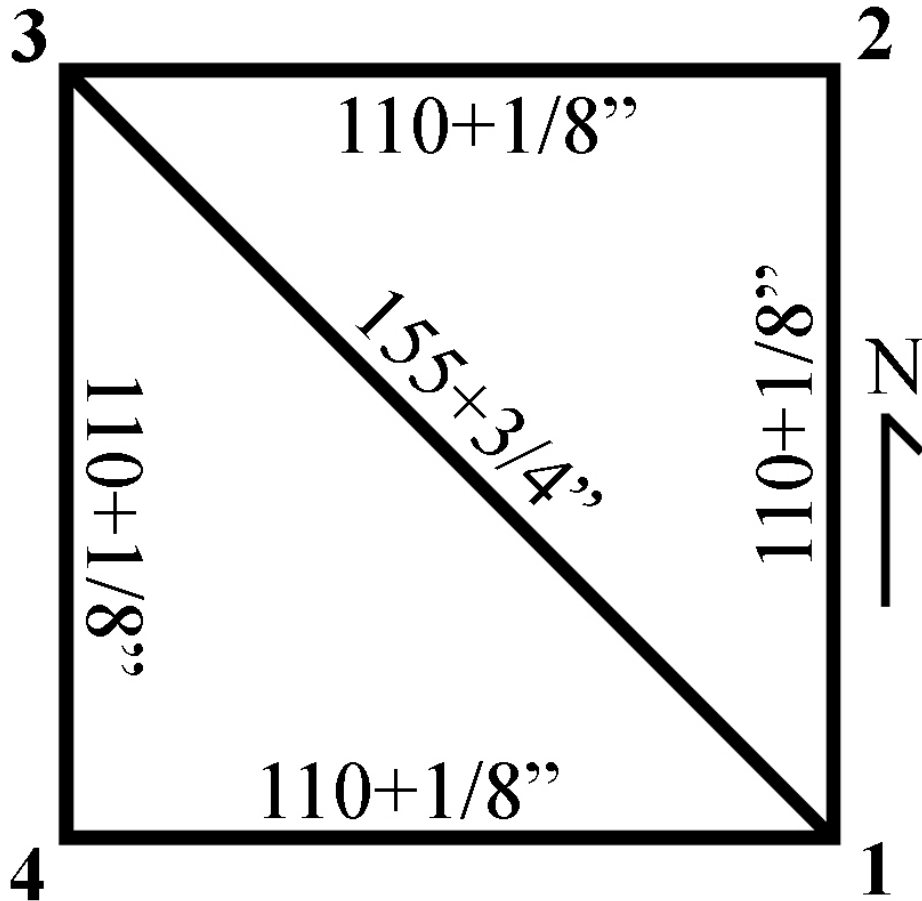


For more specific instructions on how to align your pyramid, go to www.PrecisionPyramids.com and click the “Alignment” link at the top. Also, here is a link to a decent, inexpensive compass if you should need one: <https://amzn.to/3E6qxc6>

With your 2x4 aligned to true or magnetic north, you now have the location for the first two corners of your pyramid. If it is inside, mark them with masking tape. If it is outside, use nails (which you might find are better pushed all of the way into the ground so as to not get in the way of the pieces while setting up your pyramid):



After your first two corners are marked, to find Corner #3, you will need to measure off of Corner #1 the diagonal length with a tape measure, which is 1.414 times the width of your pyramid. If you are using 10-foot PVC pipe, that would be $155\frac{3}{4}$ " (3955mm). Then match it up with the side length ($110\frac{1}{8}$ " or 2797mm for 10-foot pipe) off of Corner #2 using your 2x4 or a second tape measure.



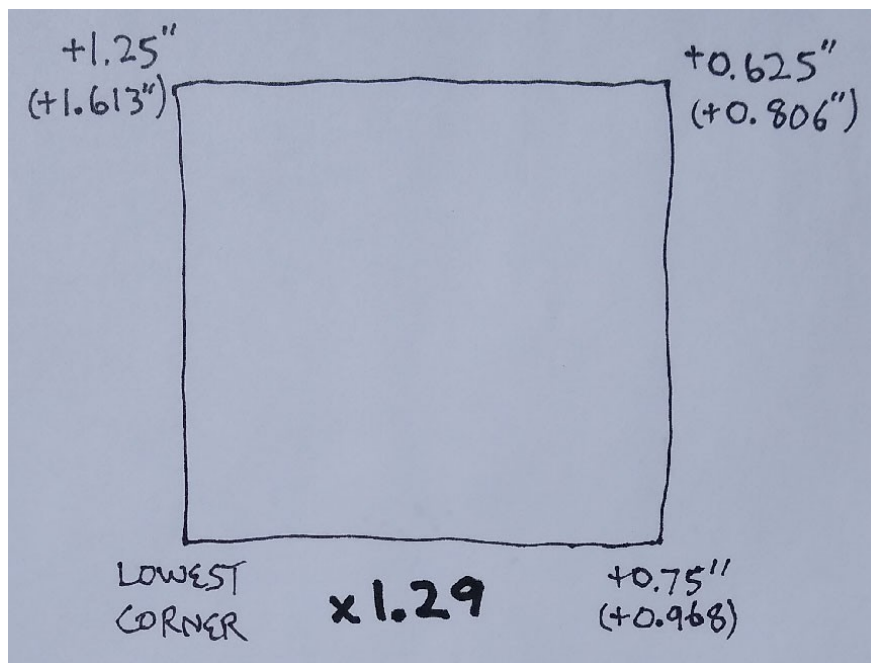
For Corner #4, measure your pyramid's width ($110\frac{1}{8}$ " for 10-foot pipe) off of the two nearest corners (#1 and #3). Then measure the opposite diagonal to see how close it is to the first diagonal. If it is within $\frac{1}{4}$ " (6mm), that is well done.

For those who are setting up their pyramid inside on a floor that could get scratched, consider placing a little bit of padding at the four corners, like cardboard or cloth.

For those who are setting up their pyramid outside, it should be on as level of an area as possible. If you want to make sure it is completely level, place a level on top of your 2x4, and measure how much higher the other three corners are from the *lowest* corner:



Then draw a diagram to show how much higher each of these three corners are. Because the dowel rods are at an angle, multiply each length on your diagram by 1.29. So if one corner was 0.75" higher than the lowest corner, then the new number would be 0.968" (about 1"):



With these new numbers, mark a little line with a Sharpie on the bottom ends on three of the pipe the appropriate distances and place them near the nails for each of these three corners. Next, dig three tiny holes with a sharp object like a screwdriver and insert each PVC pipe into the holes at an angle as you dig them to let you know when they are deep enough. When you set up your pyramid, you will be inserting the bottom ends of the pipe into the tiny holes so that each line is at the level of the ground on the *inside* of the pyramid:



>Next, insert two of your PVC pipe into the apex connector piece, with the bottom ends in line with two of your marked corners. Also, if the pipe is very loose in the holes, add a layer or two of tape to tighten them up:



In the next step, you will raise up the apex and insert the remaining two PVC pipe. You will need a helper for this step, and probably a ladder if you

are using 10-foot-long pipe. Have your helper hold the apex up in the air as you insert the pipe at the right angle. To do this, make sure the bottom ends match up with each remaining corner; otherwise, they won't want to go into the holes. Never try to force the pipe into the holes; adjust the angle instead.

After all four of the PVC pipe are in, check to make sure the four bottom ends are at the right locations and that they are all fully inserted into the apex piece up top. If it is outside, remove the four nails, as the metal could interfere with the energy. You can replace each nail with a toothpick or part of a skewer so you will know if the pyramid gets knocked out of position.



May you have magical adventures. If you should have any experiences or experiments you would like to share, please join our community forum at www.PrecisionPyramids.com/forum

And please be sure to recycle any packaging. If it came in plastic bubble wrap, including the envelope, they can be recycled with plastic bags at local grocery stores like Walmart and Safeway.