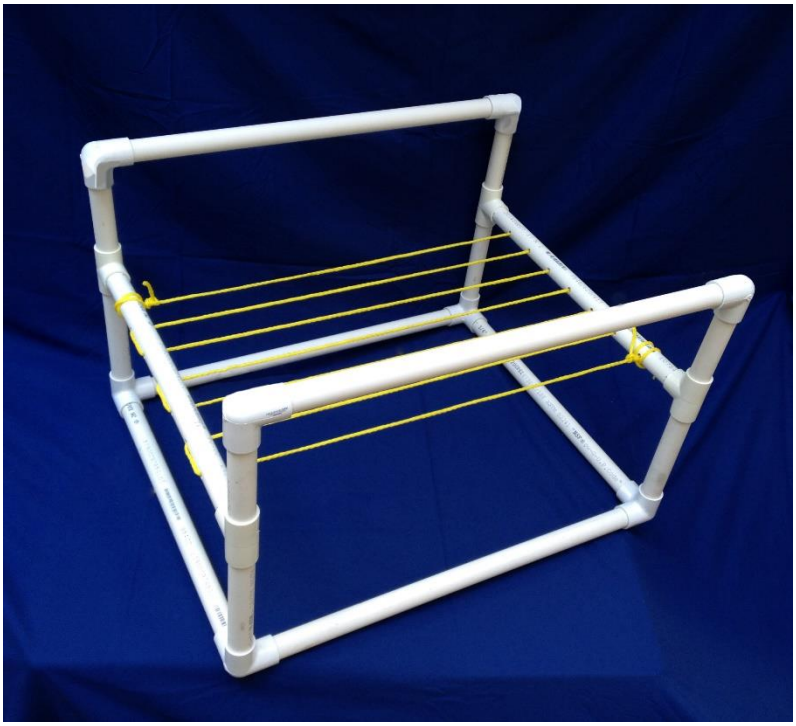
Make you own frame for the mealworm kit



Introduction

The frame has space for 2 mealworm grow bags (1kg output each), 2 mealworm breeder bins on the ground you can collect the frass with the frass collection liner. The frame is made of durable and light weight PVC that you can easily take apart anytime you want.

Parts needed:

- 2 x 10 feet ¾ inch PVC tube (305 cm)
- 4 x ¾ inch corner fitting
- 4 x ¾ inch Elbow fitting
- Rope to make the shells (polypropylene)
- Plastic sheeting (4 mil) for frass collection liner

Tools needed:

- Saw or a PVC cutter for the tubes
- Drill and a 5/16 inch (8 mm) drill bit
- Clamps and 2 pieces of wood to help the measuring
- Safety equipment
- Ammonia sanitizer

Step 1

Clean both the 10 feet tube with ammonia sanitizer to make a clean and hygienic frame.

Step 2

Cut the 2 10 feet PVC tubes into the right sizes. You need the following sizes:

- 4 x 5 inch (12.7 cm)
- 4 x 7 inch (17.8 cm)
- 4 x 17 inch (43.2 cm)
- 4 x 21 inch (53.4 cm)

An easy and fast way to do this, which also helps you with drilling the holes step 3, is to clamp two pieces of wood to you working table and mark the exact measures on the wood, see picture 1. Than you can slide the 10 feet tube between the wood, mark the measurements and saw or cut the tubes to the right size. You should end up with what is shown in picture 2.

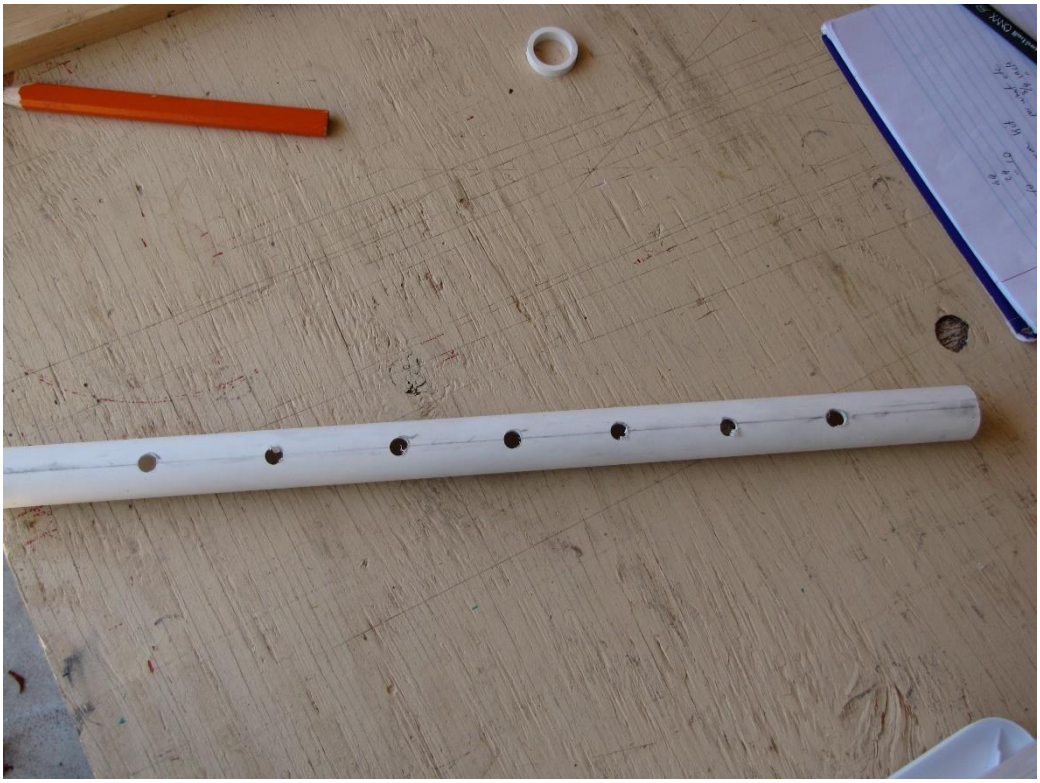
Picture 1. *Clamp two pieces of wood on you working table and mark the right measurements on the wood.*

Picture 2. *All the right tubes needed for the frame.*

Step 3

Next is drilling the holes. Take 2 of the 17 inch tubes. Slide each of them back between the two pieces of wood you used in step 2.To make sure you have holes that are straight, draw a straight horizontal line on the tube on which you will mark the holes.

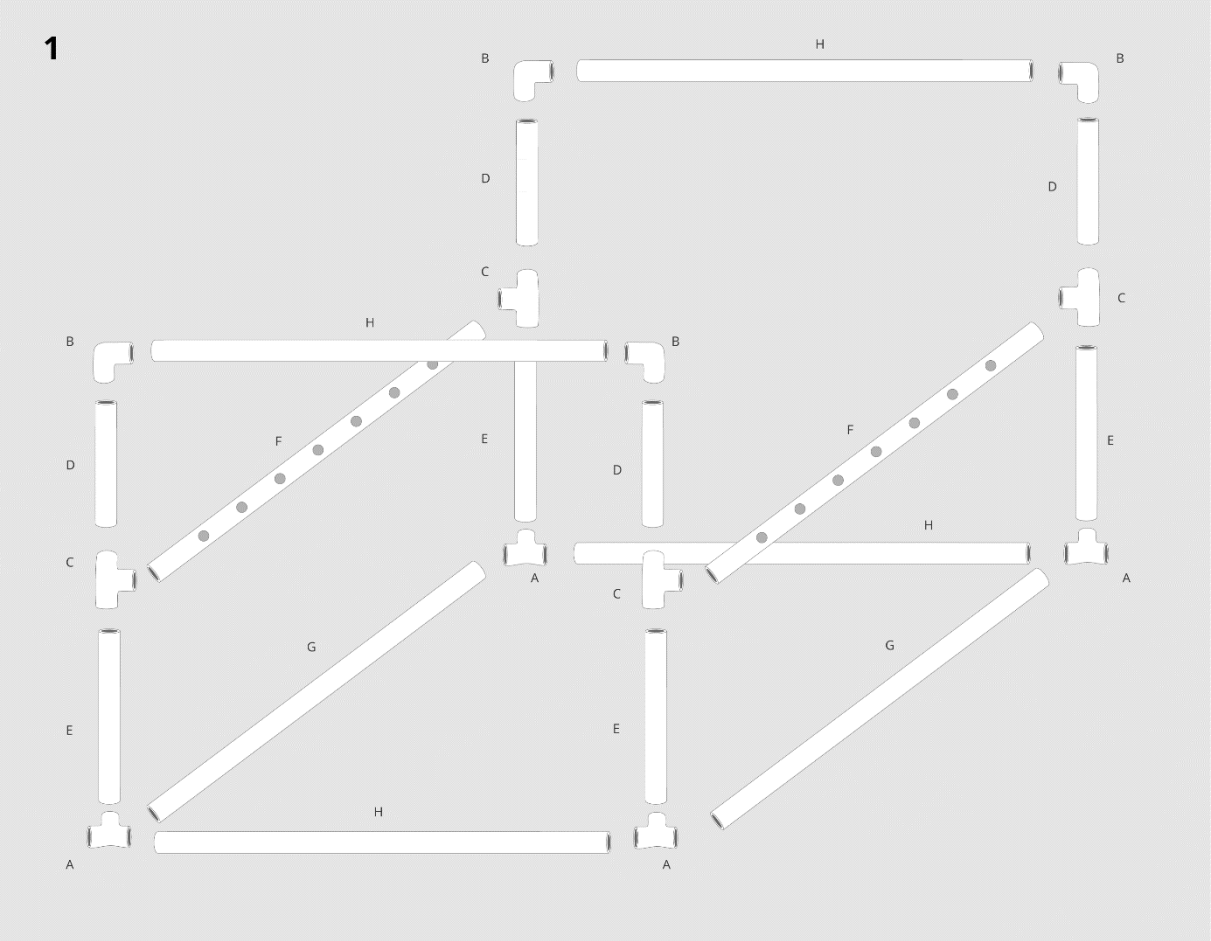
Each tube need 7 wholes. The exact position of these holes are: 3 inch (7.6 cm) from each end and 1.8 inch (4.6 cm) between each hole. Now measure out the position of the holes, draw them on the on the tubes and drill the holes with a 5/16 inch drill bit, see picture 3.



Picture 3. *Holes drilled in two of the 17 inch tubes.*

Step 4

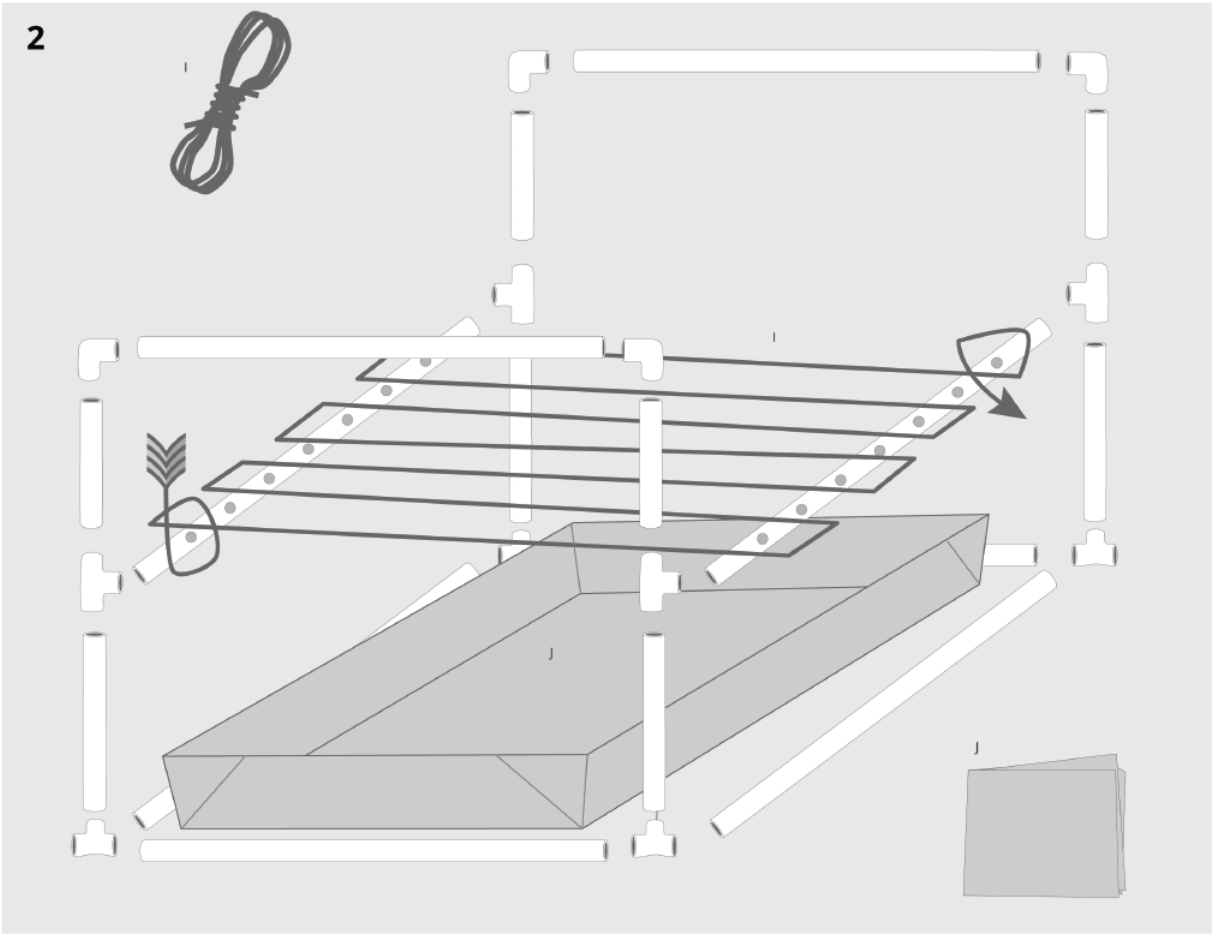
Collect all the tubes and build your frame as shown on the picture 4. Be sure that the pipe segments are pushed all the way into the fittings. A rubber or wood mallet can be used to help tap the frame tightly together. Using your body weight to press sections of the assembled frame firmly against the ground should be sufficient to fully fit the pipe segments. The holes in the drilled 17 3/4" (F)segments should be parallel to the ground.



Picture 4. *Putting the tubes together*

Step 5

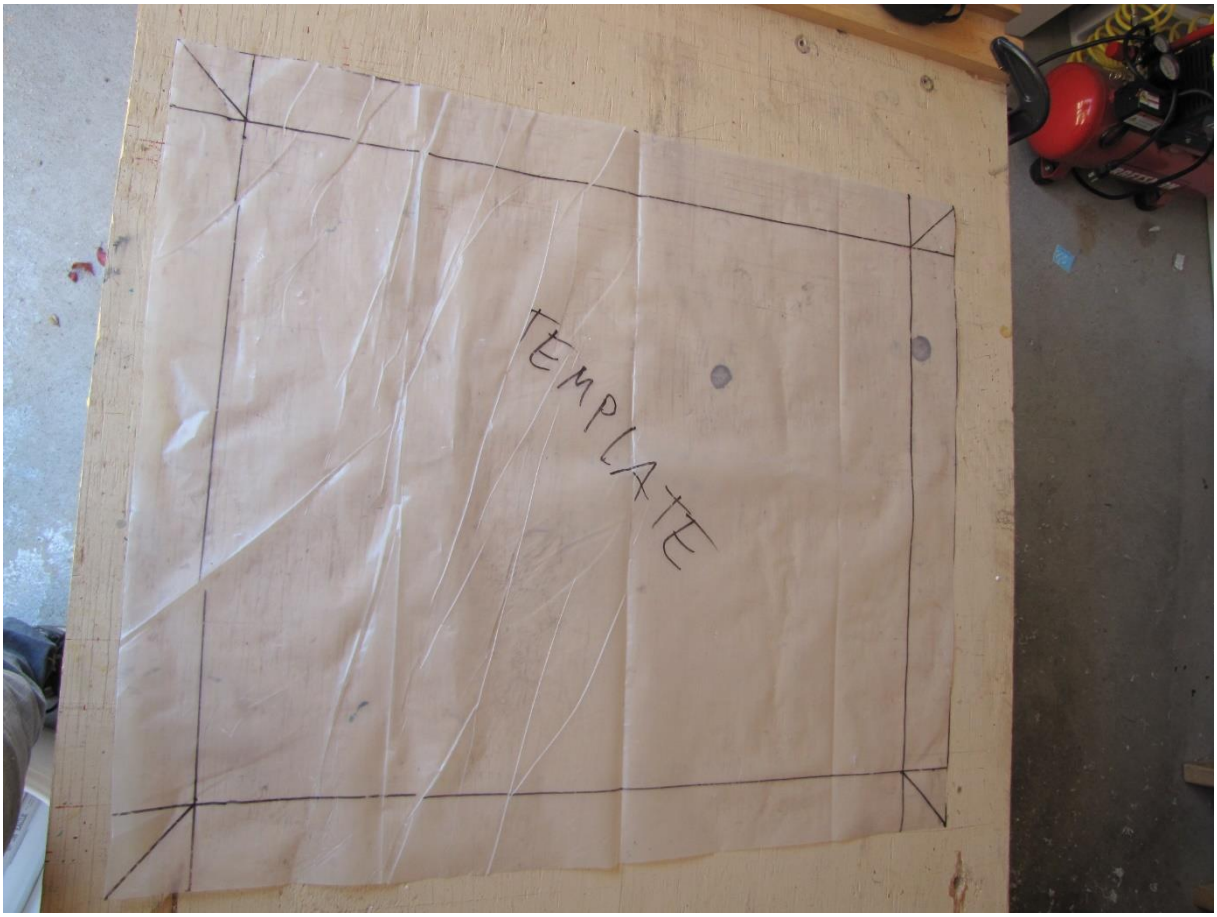
Now you will make the rope shelf, see picture 5. Feed the rope through the first hole, wrap twice around the pipe and tie tightly. Feed the rope through the remaining holes, weaving back and forth as show in the illustration above to form the shelf. Pull the rope tight one length at a time, starting at the knotted end until the entire shelf is taut, and the remaining length of rope is pulled firmly through the last drilled hole, in the opposite corner from the starting knot. While holding the tension, wrap the remaining length of rope twice around the pipe, and tie it off tightly.



Picture 5. *Making the rope shelf for the mealworm breeder bins.*

Step 6

The last step is to make the frass collection liner. Cut a square out of the plastic sheeting of 26.5 inch (67 cm) by 22 inch (56 cm). Mark with a pen the folding lines for the side walls of the liner, these walls need to be about 2 inch (5 cm) (see picture 6). Now form the frass collection liner by folding the corners up where marked on the plastic, and then tape or staple the triangular flap to the side wall of the liner as seen on picture 5 above.



Picture 6. *Frass collection liner to store under the mealworm grow bags.*