

## **4x9 ft Dome Assembly Instructions**

You will need:

A wrench or drill with a 7/16" socket for tightening the bolts

Rubber coated knit gloves (\$3 gloves at Walmart or any Hardware store)

At least 15 foot diameter circle of space indoors or outdoors

Assembly Time:

4 hours for one person

2 hours for two people

These instructions can be downloaded at

<http://www.ziabox.com/bdome>

Please contact me if you have any questions

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## Contents:

### 120 pipes

- 50 green-tip pipes (longest)
- 40 blue-tip pipes (2<sup>nd</sup> longest)
- 30 red-tip pipes (shortest)

### 46 hubs

- 25 “6-point” hubs
  - 10 blue or white
  - 10 purple or pink
  - 5 orange
- 6 “5-point” hubs
  - 5 red
  - 1 orange
- 15 “4-point” hubs
  - All green or yellow

### 240 nuts and bolts

The pvc pipe tip should be attached to the bolt by fitting the hole in the pvc pipe tip over the bolt on the hub. The side with the ink and blue, green or red mark should face towards the inside of the dome. Then a single nut can be used to secure the connection. At first just hand tighten the nut, then after the entire dome is together each bolt should be tightened firm with a hand dill or ratchet. Wearing a snug pair gloves is recommended for tightening the nuts by hand.

There are 5 levels.

- The first level is the ground level where all the green hubs will be used.
- The second level uses the five red hubs and the ten blue hubs.
- The third level uses the ten purple hubs.
- The fourth level uses the five six point orange hubs.
- The top apex uses the one five point orange hub.

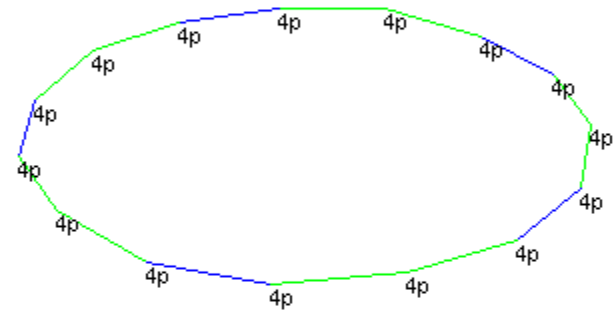
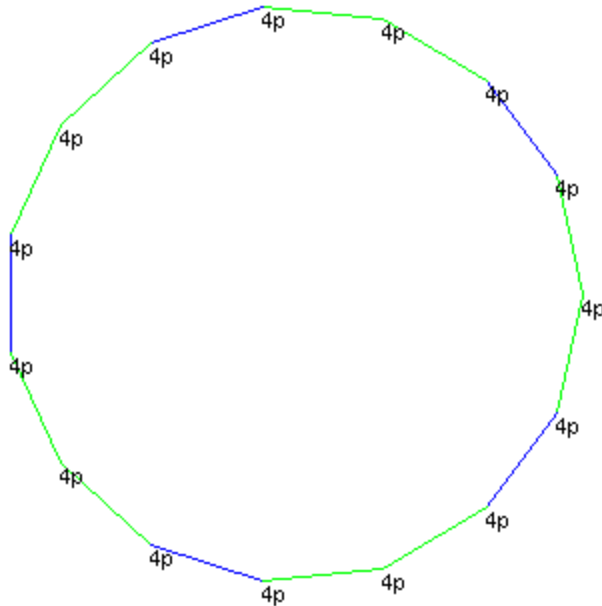
## Step 1 -Create the ground layer

Estimate a 9-foot diameter space. The 9-foot circle diameter does not have to be exact. A rough approximation is fine.

Set aside

- 15 green “4-point” hubs
- 10 green pipes
- 5 blue pipes

Attach the pipes to the hubs by inserting the bolt on the hub into the hole on the tip of the pipe. Then place a nut on the bolt to secure the pipe to the hub. The nut should only be finger tightened onto the bolt. You will tighten them later with a drill or ratchet after all the hubs and struts have been assembled.

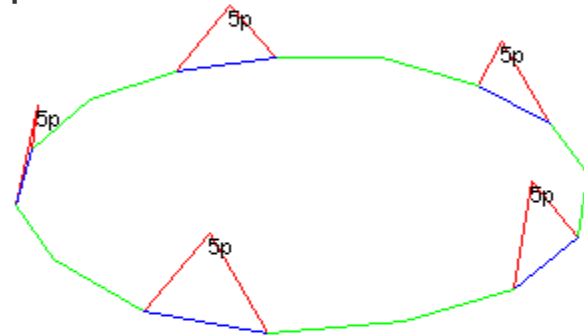
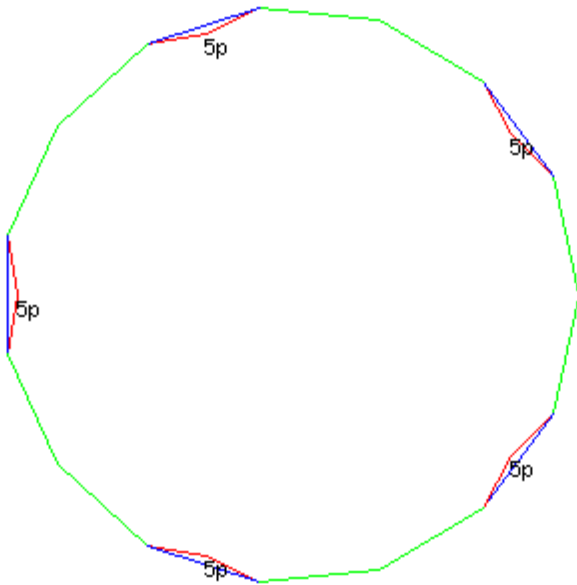


## Step 2 -Create the ground layer red triangles

Set aside

- 5 red “5-point” hubs
- 10 red pipes

Attach the 10 red pipes to the tops of the 4-point hubs above the blue pipes. This will form 5 triangles. Attach the 5 “5 point” hubs to the tops of the triangles. You can prop up the triangles temporarily using a pipe to form a triad and keep the triangles pointing up and keep them from falling. Later, after the second layer is formed, the triangles will stay standing up without a prop.

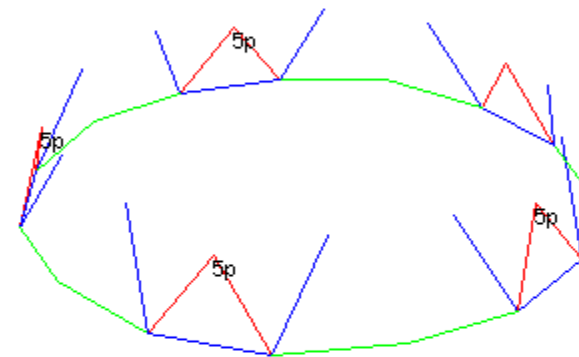
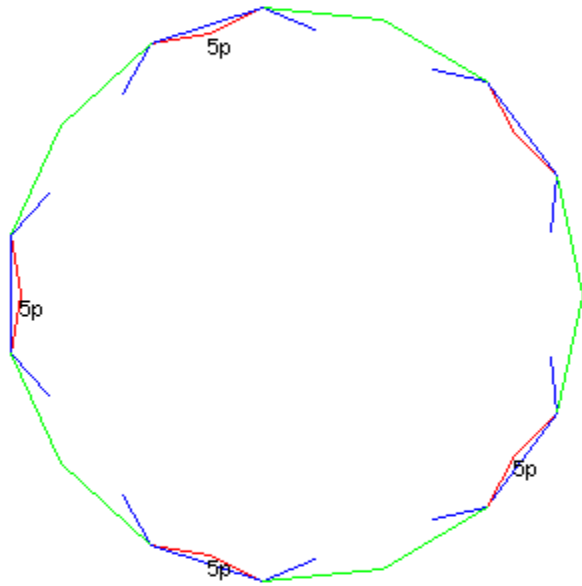


### Step 3 – Add blue pipes to ground layer triangles

Set aside

- 10 blue pipes

Attach the 10 blue pipes to the tops of the 4-point hubs above the blue pipes and next to the red pipes.

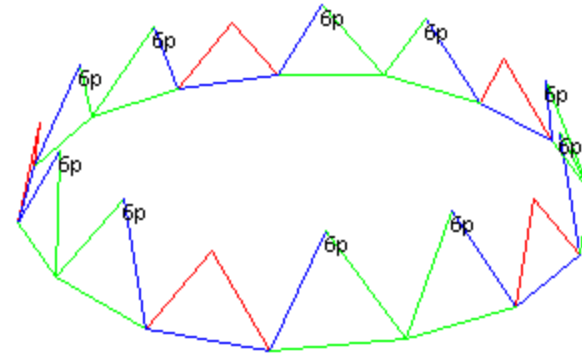
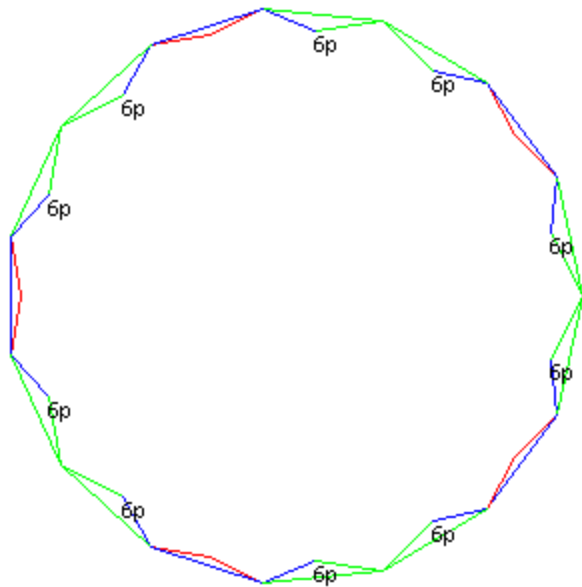


## Step 4 – Add green pipes to ground layer triangles

Set aside

- 10 green pipes
- 10 blue “6-point” hubs

Attach the 10 green pipes to the tops of the 4-point hubs above the green pipes and next to the blue pipes. Attach the 10 “6-point” hubs to the tops of the green pipes. This will form all the ground level triangles.

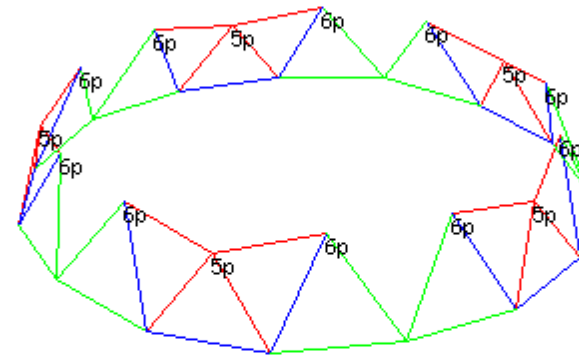
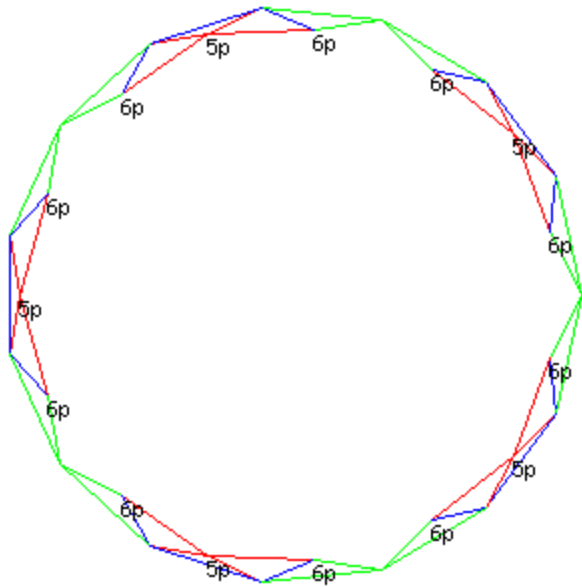


## Step 5 – Add red pipes to start forming second layer

Set aside

- 10 red pipes

Attach the 10 red pipes to the sides of the “5-point” hubs at the top of the smaller ground layer triangles.

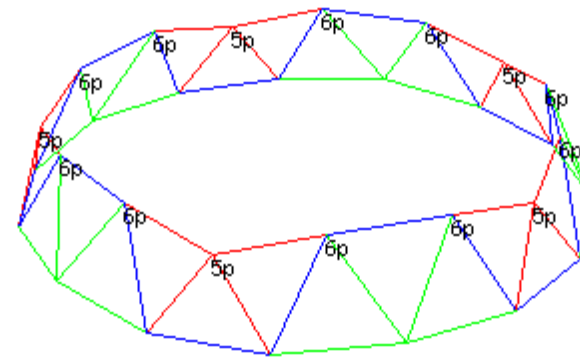
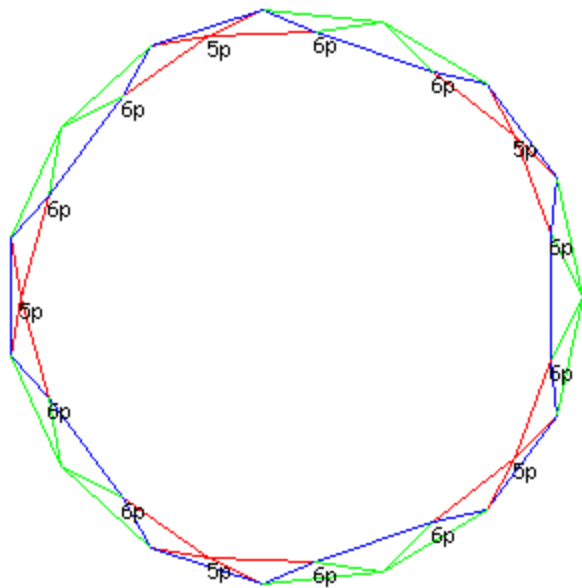


## Step 6 – Add blue pipes to finish forming second layer

Set aside

- 5 blue pipes

Attach the 5 blue pipes to the sides of the “6-point” hubs.



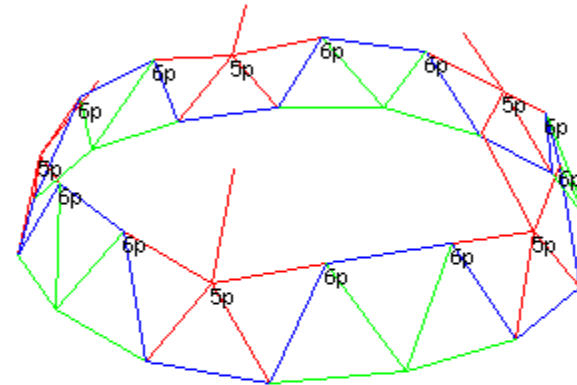
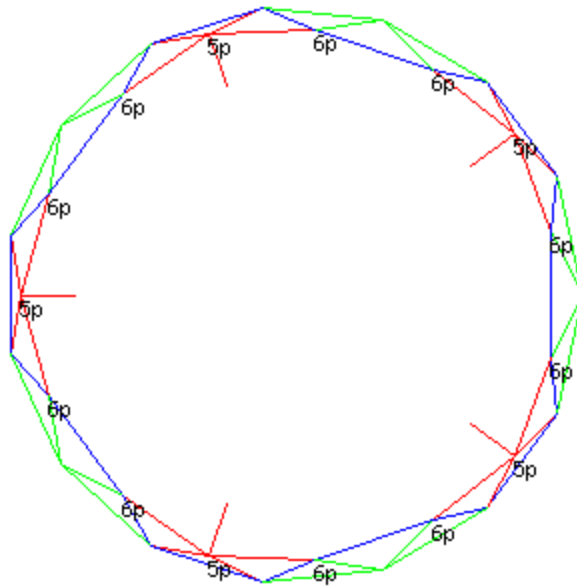


## Step 7 – Add red pipes to start forming second layer triangles

Set aside

- 5 red pipes

Attach the 5 red pipes to the tops of the “5-point” hubs.

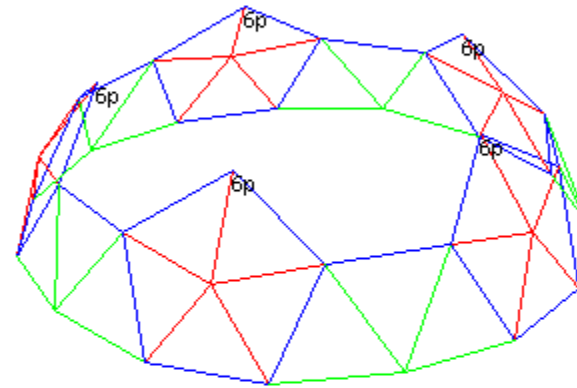
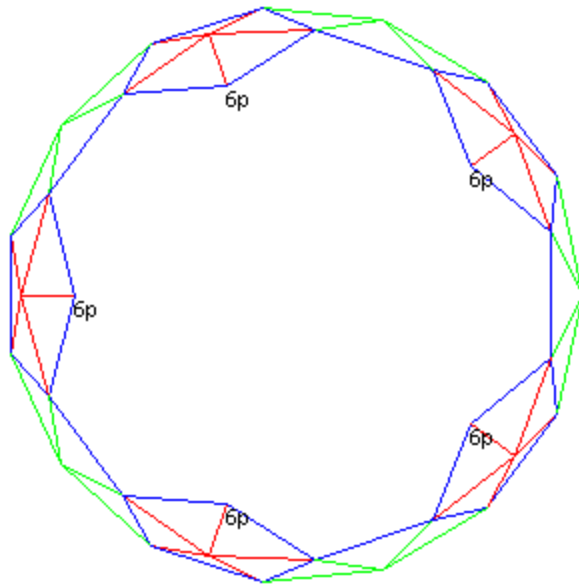


## Step 8 – Add blue pipes to second layer triangles

Set aside

- 10 blue pipes
- 5 purple “6-point” hubs

Attach the 10 blue pipes to the tops of the “6-point” hubs next to the red pipes. Add the 5 “6-point” hubs to the top of the triangles.

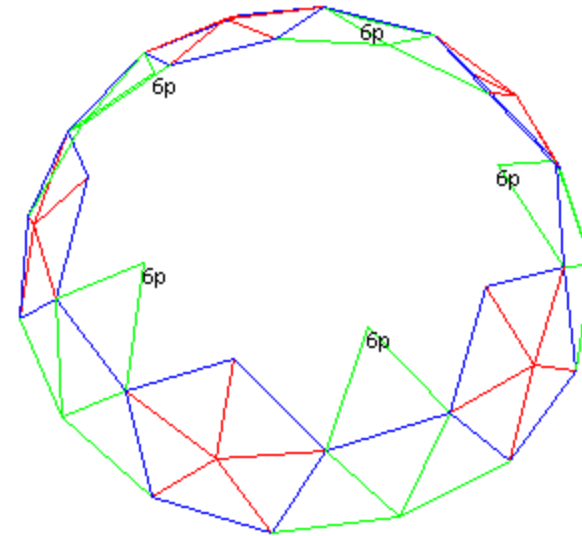
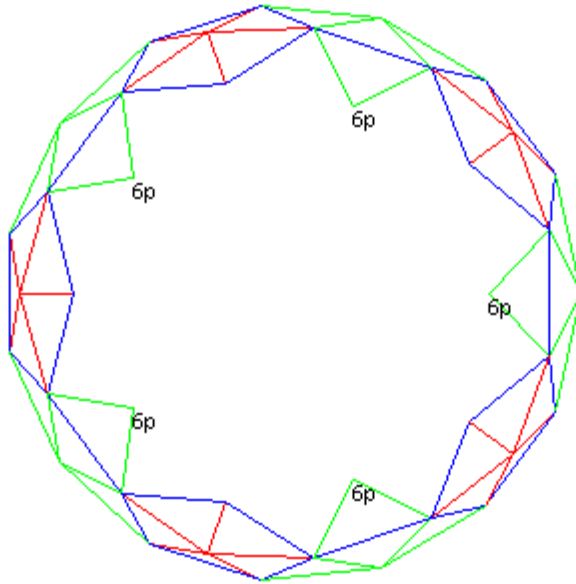


## Step 9 – Add green pipes to second layer triangles

Set aside

- 10 green pipes
- 5 purple “6-point” hubs

Attach the 10 green pipes to the tops of the “6-point” hubs next to the blue pipes. Add the 5 “6 point” hubs to the tops of these newly formed triangles.

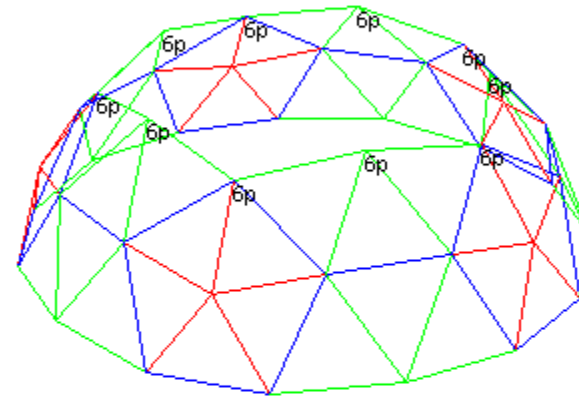
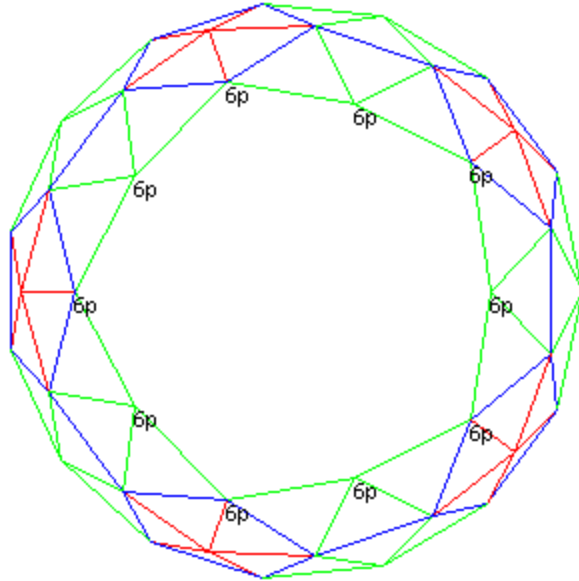


## Step 10 – Add green pipes to form third layer

Set aside

- 10 green pipes

Attach the 10 green pipes to the sides of the “6-point” hubs.

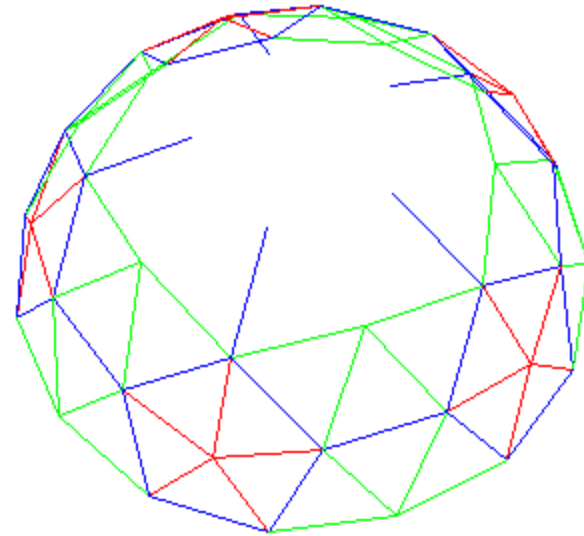
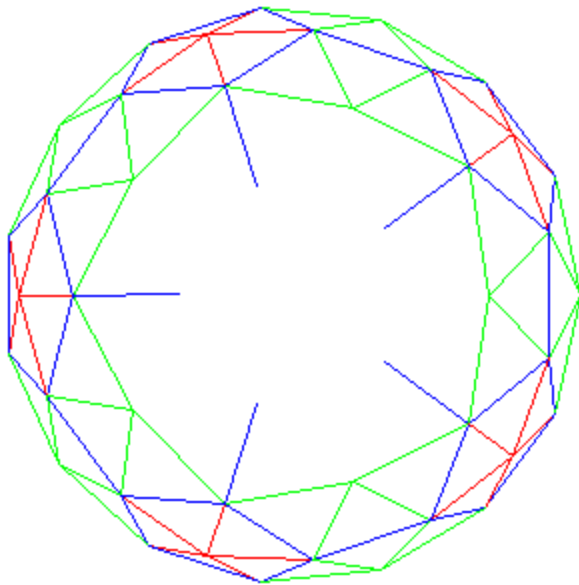


## Step 11 – Add blue pipes to start forming third layer triangles

Set aside

- 5 blue pipes

Attach the 5 blue pipes to the tops of the “6-point” hubs.

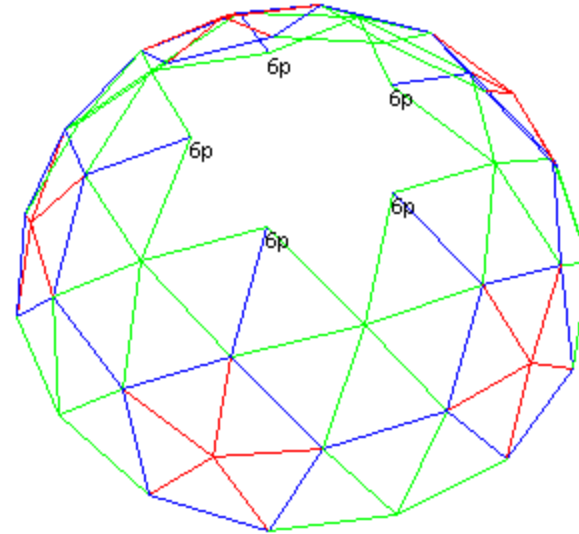
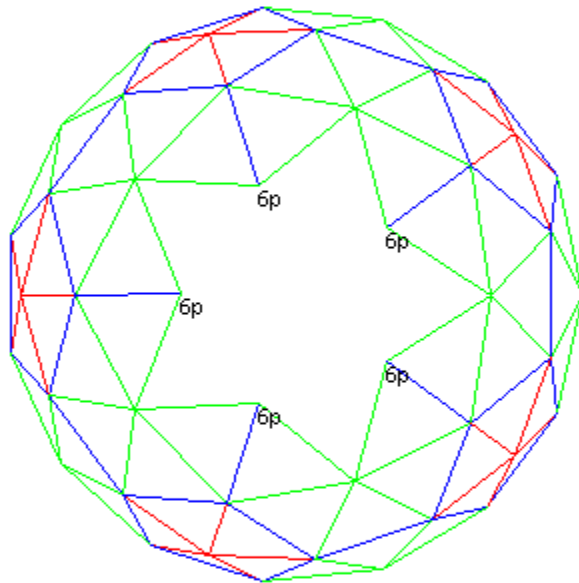


## Step 12 – Add green pipes to finish forming the third layer triangles

Set aside

- 10 green pipes
- 5 **orange** “6-point” hubs

Attach the 10 green pipes to the tops of the “6-point” hubs. Add 5 “6-point” hubs to the tops of the newly formed triangles.

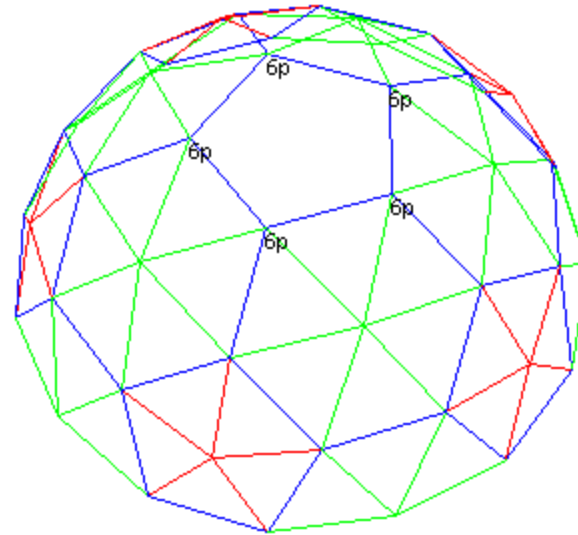
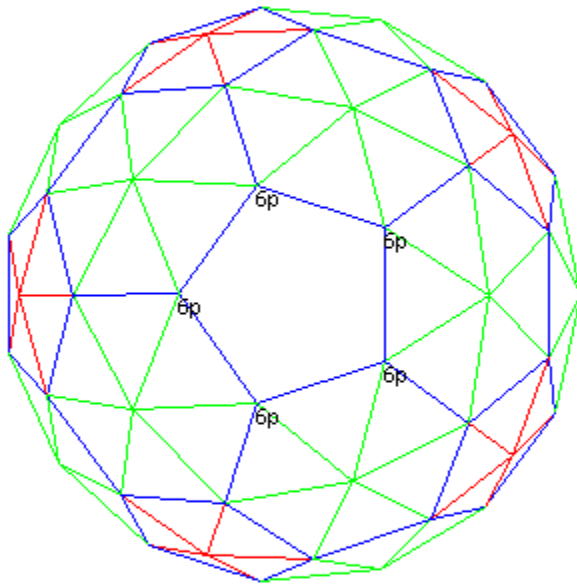


## Step 13 – Add blue pipes to form fourth layer

Set aside

- 5 blue pipes

Attach the 5 blue pipes to the sides of the “6-point” hubs.

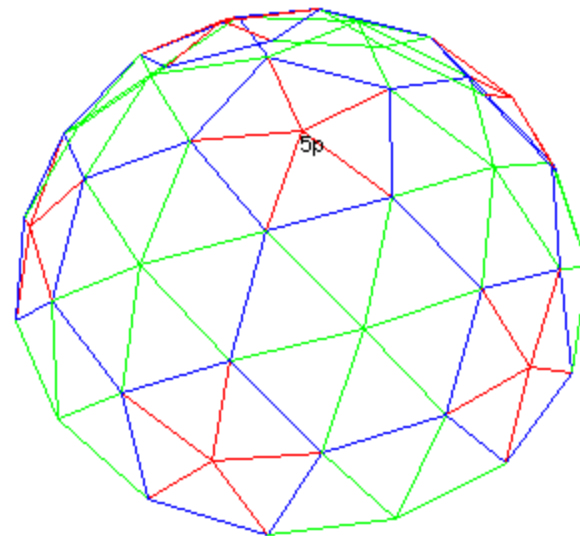
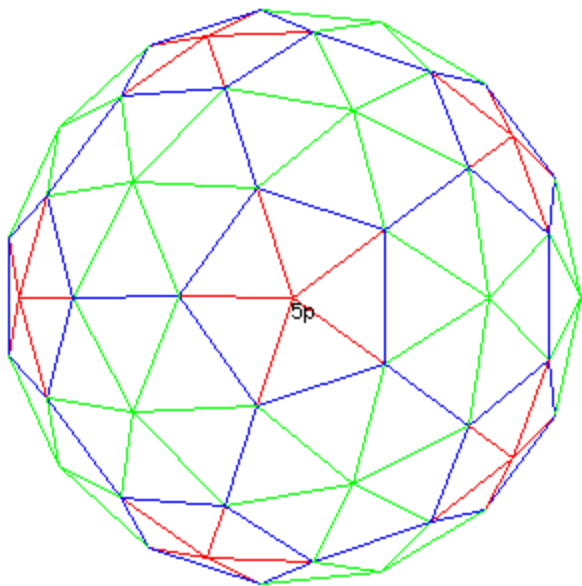


## Step 13 – Add red pipes to form final top layer

Set aside

- 5 red pipes
- 1 **orange** “5-point” hub

Attach the 5 red pipes to the tops of the “6-point” hubs. Add the “5-point” hub to the top and attach the other ends of the red to the top “5-point” hub.





Step 14 – Tighten all the nuts with a drill or ratchet using a 7/16 socket.

Start with the bottom layer and work your way to the top tightening all nuts on each hub. After you are finished, double check that all nuts are tight.