

## Task 3.1 - Biped Patrol (BP)

Greetings from e-Yantra!

We hope you have printed the arena and constructed the racks and beds for the Medical Store, Medical Camp Room 1 & Medical Camp Room 2.

According to the Rulebook the Medbot is expected to pick items from Medical Store Racks and deposit them to their respective places as explained.

There are three types of supplies in the Medical Store:

1. Medicine Boxes (MB)
2. First Aid Kit (FAK)
3. Chlorine Tablets (CT)

The dimensions for MB and FAK are **40mmX40mm X40mm**, refer image below:

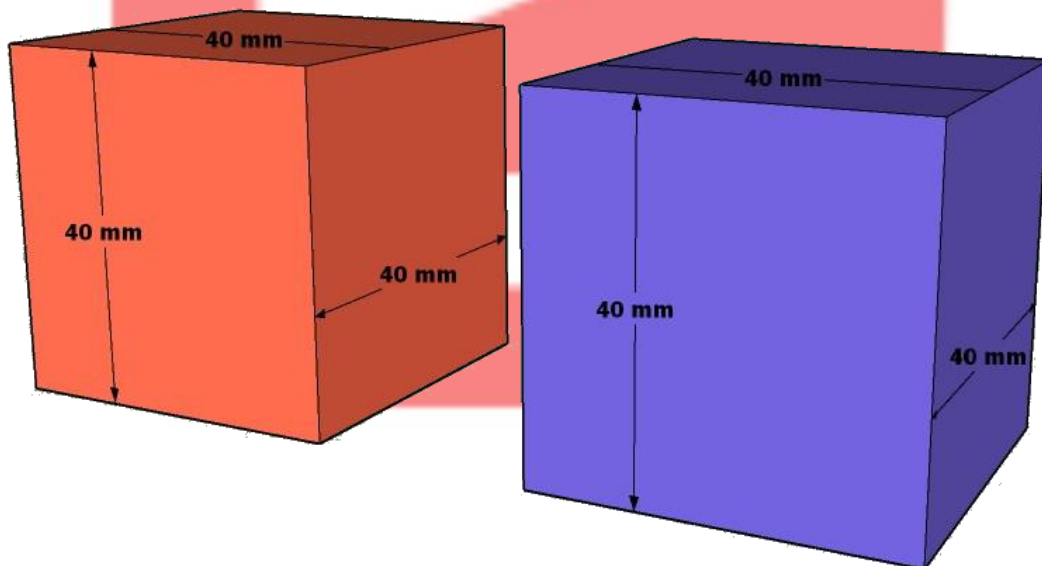
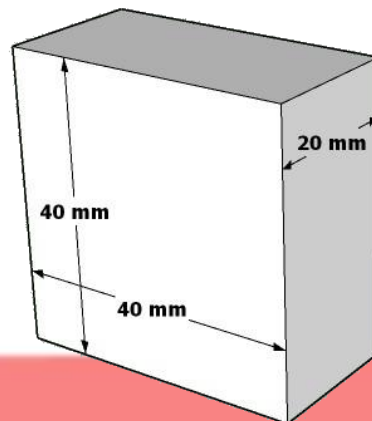


Figure 1: MB & FAK

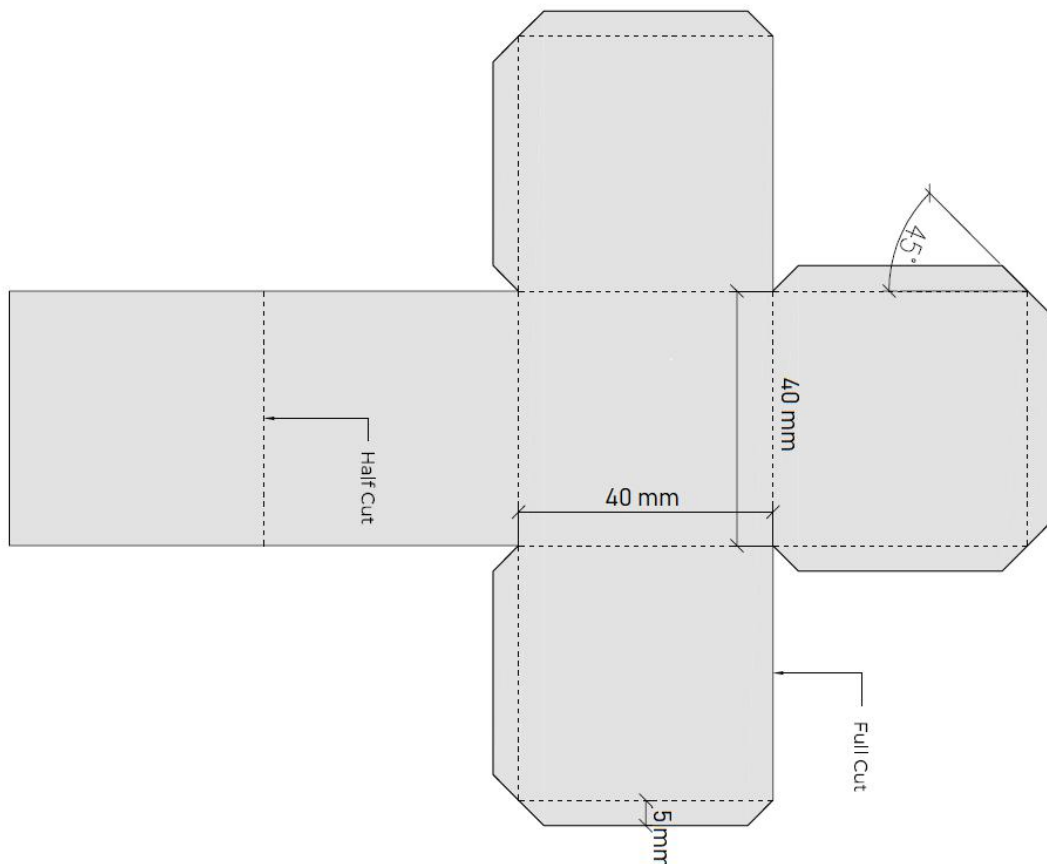
The dimensions for CT are **40mmX20mm X40mm**, refer image below:



**Figure 2: CT**

For making these items we will use “**Pastel Sheets**”. You will find Pastel Sheets in stationery shops. These are thicker than normal chart papers.

- To make MB and FAK, cut out shapes from the Pastel Sheet as given in the image below:



**Figure 3: MB & FAK**

As you can see that there are two types of lines in the image above, the **solid lines** indicates full cut and the **dotted lines** indicate the Half Cut.

In Half Cut you need to slide the paper cutter with light hand in such a way that it does not dissect the sheet in two separate pieces, instead it creates a crease in the sheet due to which it is easy to fold the sheet from that line of crease. Refer to images below for getting an idea about the stages of cutting and effect of Half Cut:

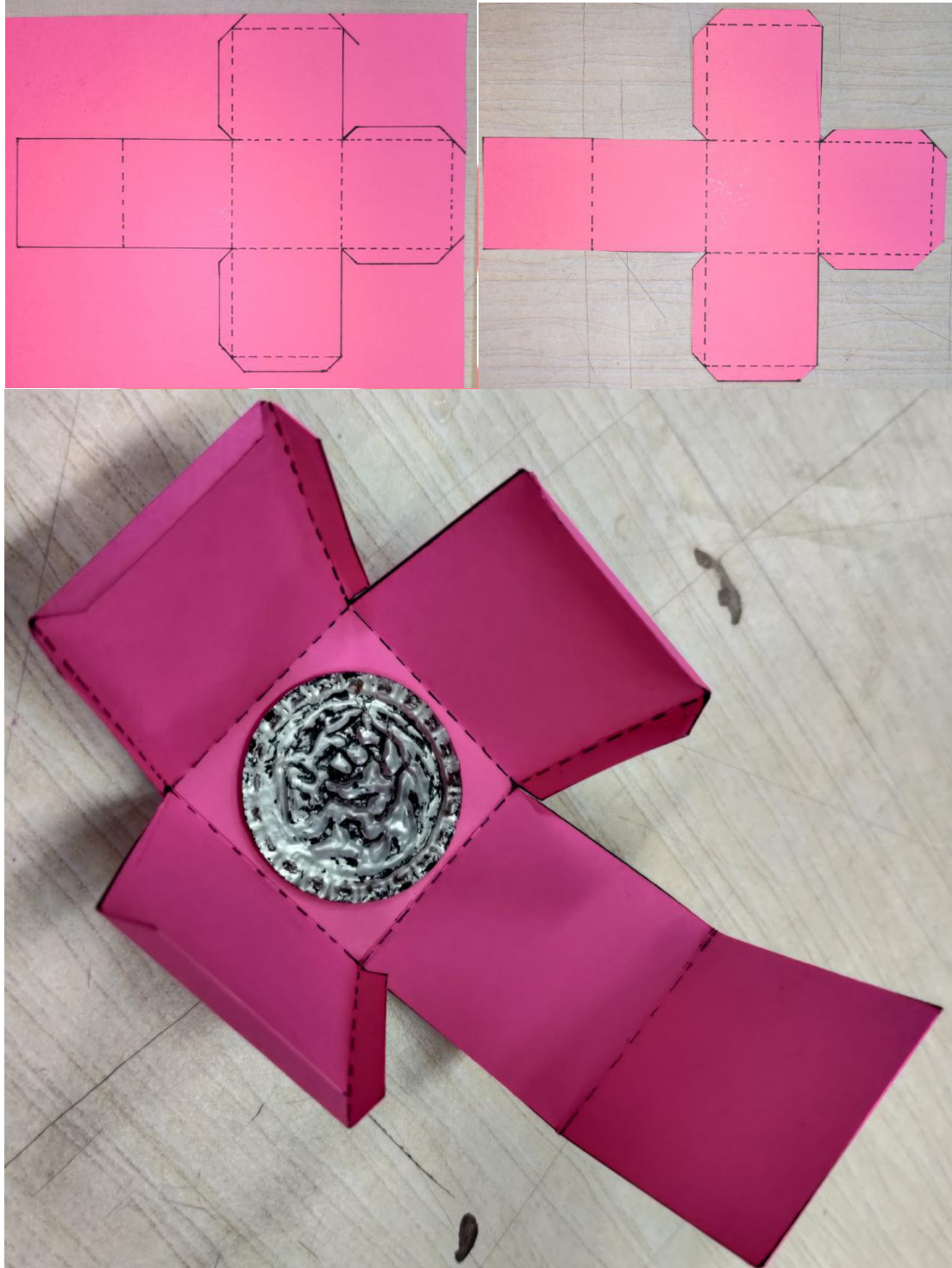
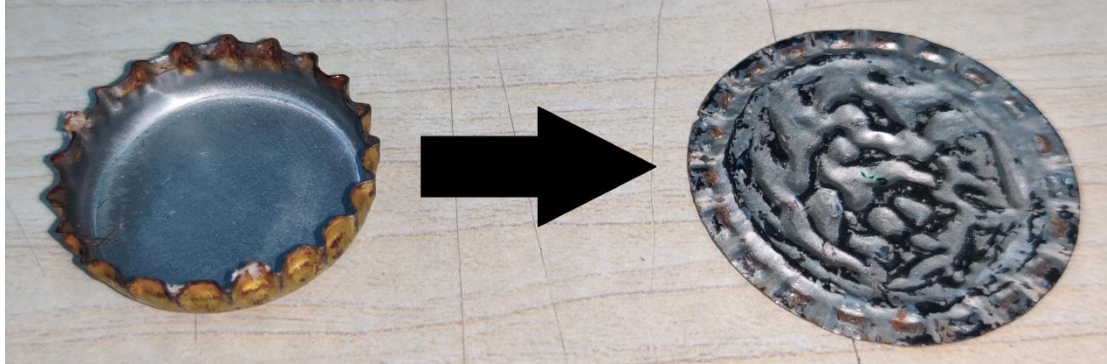


Figure 4, 5 & 6



The line where you have done Half Cut will be used to fold the said piece of sheet into a cube.

As we understand that these items will be picked and dropped using an electromagnet, we will stick a piece of metal inside the box on one of the faces as indicated in Figure 6. For this you can use something like a bottle cap. Refer image below:



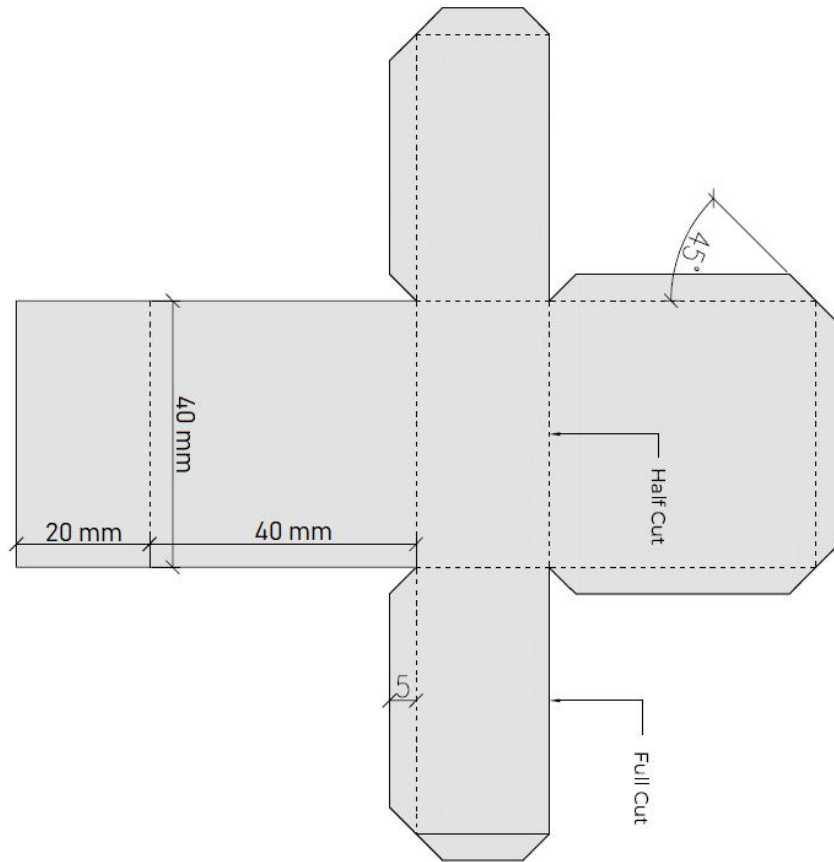
**Figure 7**

After pasting the metal, fold and stick the edges of the boxes as indicated below:



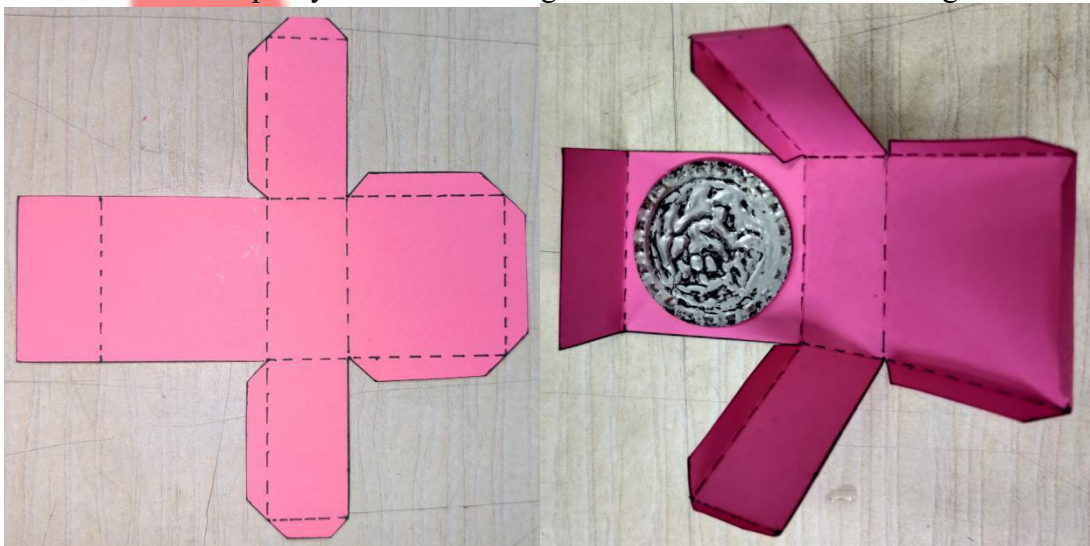
**Figure 8**

- Similarly, to make CT, cut out shapes from the Pastel Sheet as given in the image below:



**Figure 9**

Follow the same steps as you did for making the MB & FAK. Refer to image below:



**Figure 10 & 11**

After pasting the metal, fold and stick the edges of the boxes as indicated below:



**Figure 12**

In the image above the marked face has the metal piece pasted from the inside.

**Best of Luck!!**