Innovation by Design
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Module - 3
Start of section 7
Lecture – 19
Experiencing the Product: Enhancement and user feedback

So, what is happening? You have the filter inside

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But then remember? we ourselves said that when this filter is inside it smells. So, then you realize that you know oh, this is not going to work, this is got lot of value. So, let us further develop this and take it forward.

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So, then the student said why should it be round why cannot I use a square.

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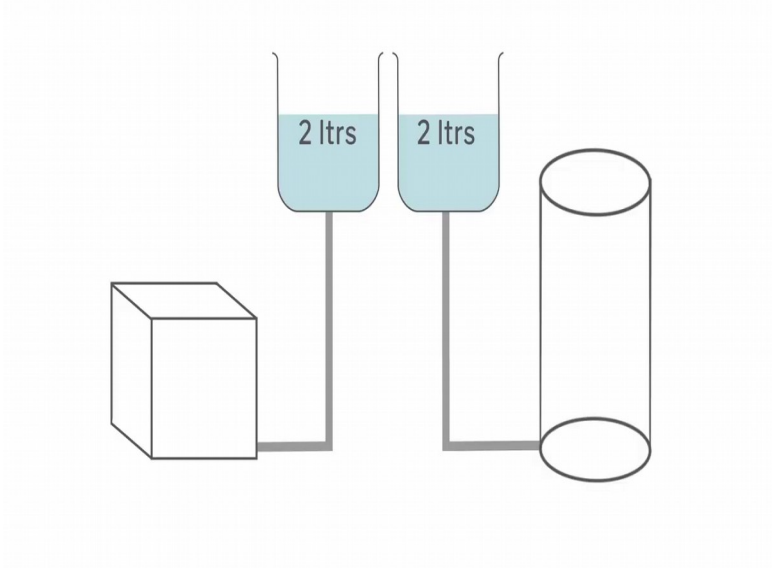

Because I am able to take more volume, we need a 2 liter capacity volume and then.

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She built a mockup model you saw what a rig was?

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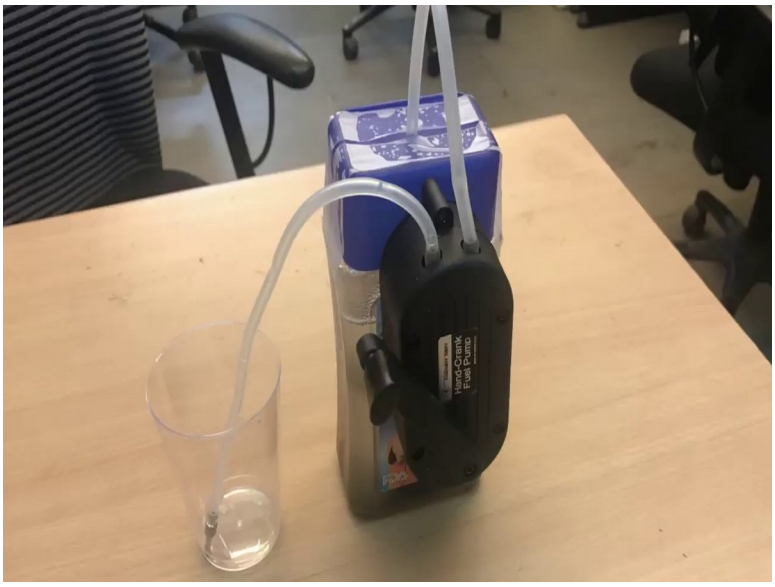

A Rig was a working model; a mock model is physically resembles the shape, but does not have any functional aspect.

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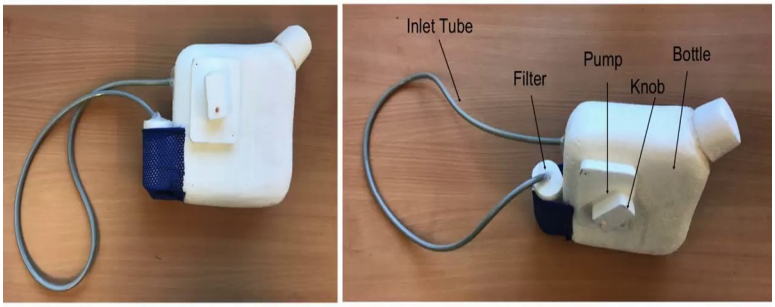

So, she developed this with the tube with everything and now she moved the filter outside see, but the technique of rotating is still there which is why the product was selected and then that is Devanshi, in the picture. So, what did she do? You must do an enacting of your mockup. So it is like a theater, you go with this thermocol as if you are going to fill water, you go to the pond you sit over there, take this bottle from the bag, do the complete operation as if you are filling water and then drink also from it and she is not getting anything out of it and then experience the whole thing.

So, you start getting problems and you can start solving those problems. But she said the the cranking was very easy the bottle holding very easy because of the square a lot of other advantages she could find out. Now, we learnt a lesson we said who are we to decide if the bottle is good or not who should decide? The end users. So, we again sort of went to CRPF and we showed them the thermocol. From my earlier experience I knew that we must not show thermocol to end users, but now these end users were part and parcel of our design process.

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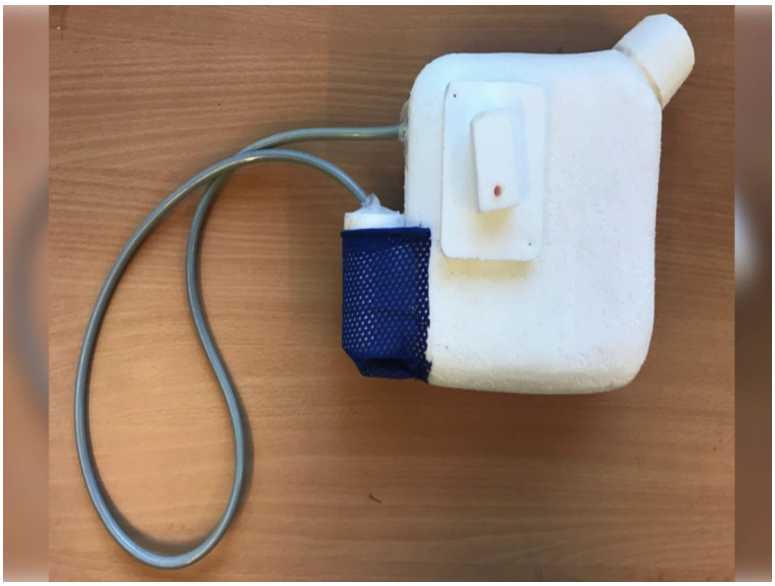

But here in this case we changed our own strategy and we took a thermocol mock up to them and said that you imagine that this could be a bottle and we you know discussed with them and you can see you know.

‘Officer 1: Water filtering; water filter mein inke nanocarbon tubes lage hue hai jisse water filter ho karke is bottle mein ayega. Water ko suck karne ya bottle mein lane ke liye ek pump is tarf diya hua hai. Jisse se hum kheech karke ye pump se water mein manually hum water bottle mein lenge. Toh mujhe ek shape ke regarding ismein thoda sa doubt lag raha hai.

Officer 2: Uper ke side mein rahna hai, already bottle aise khade roop mein rehna hai, us samay body ke upar usko rakhne se kahin letna padta hai toh aisa koi damage hone ka khatra hai

Officer 1:So iske top mein uske cap ke side mein agar ye filtering system hone se aur thoda mazboot rahega.

Ya toh iske neeche wale cap mein iska attachment rakh sakte hai or ye joh tube latak rahi hai, wo roll karke ismein laga sakte hai, toh ek compact water bottle humein nazar ayega.

Aur ye pump ke regarding vagera koi point kisika kis tarah ka hona chahiye?

Officer 3:Ye pump kaise? Jaise ab hum pond se ya naale se bhar rahe hai chalte chalte,kya ye filter humein pehle hi dalna padega?

Ye pani mein dalke pump ghumana hai sirf

Apne aap suck karke isimein aa jayega aur cap khuli hogi toh apko dikhyi bhi dega kitna pani aa raha hai

Aur shape ke regarding vertical shape, minimum 2 litre capacity wala, aur humara jo uniform ka color, uske matching hota, aur sound proof rahe. Aur ek aur bhi problem aata hai jaise garmi mein chalet hai toh kuch samay ke badh bottle ka smell pani mein aa jata hai.

3-4 ghate ke badh smell aa jata hai. Wo nahi hona chahiye.'

Translation: 'Officer 1: They have attached nanocarbon tube filters at the end of the bottle. The water will get filtered and enter the bottle. To draw the water to the bottle, they have used a crank pump which is fixed to one side of the bottle. By manually cranking it, we can fill the water to the bottle. I have a doubt regarding the shape of the bottle.

Officer 2: As the pump is on the top, will there be damage to the bottle incase we have a situation were we have to lie down and our body weight comes on top of the bottle?

Officer 1: If the filtering unit can come on top, next to the cap maybe the unit will be more durable. Or it can come below the bottle, maybe as an attachment, and the tube that is hanging can also be rolled and kept at the bottom of the bottle, making it a single unit.

Is there any feedback regarding the pump?

Officer 3: How does it work? If we approach a water body during the trek, do we have to put the filter in the water first?

Officer 1: Yes, you have to put the filter in the water and just crank/rotate the pump.The water will automatically enter the bottle and if the cap is open, you can also see the quatity of water that is getting filled.

And regarding the shape, it is preferable if it is vertical with minimum 2 litre capacity and if the color matches with our uniforms and if its soundproof it will be great.

And also there is one more problem, like during summers, the water takes up the smell of the bottle, when it stays inside for so many hours, that shouldn't happen'

So, we got very valuable feedback again this has the shape itself is not convenient for us to carry. See what happens designers like to try new things, we knew this from day one.

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That you know it is going to go on the side of the bag, but she also founded where the square bottle can hold more water. So, what do I trade of? Holding more water or carrying in the bag? So, my end user is clearly telling me trade off the large volume to carrying ease; so, it had to be made round again.

They had you know again you know suggestions of where the cranking should be because the cranking is done you know when you are filling water so, that should be in a location which is more easy along the length of the bottle rather being on the side. So, all these suggestions were taken and you know while the student was in a third stage of presentation of the she made this multiple mockups again.

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