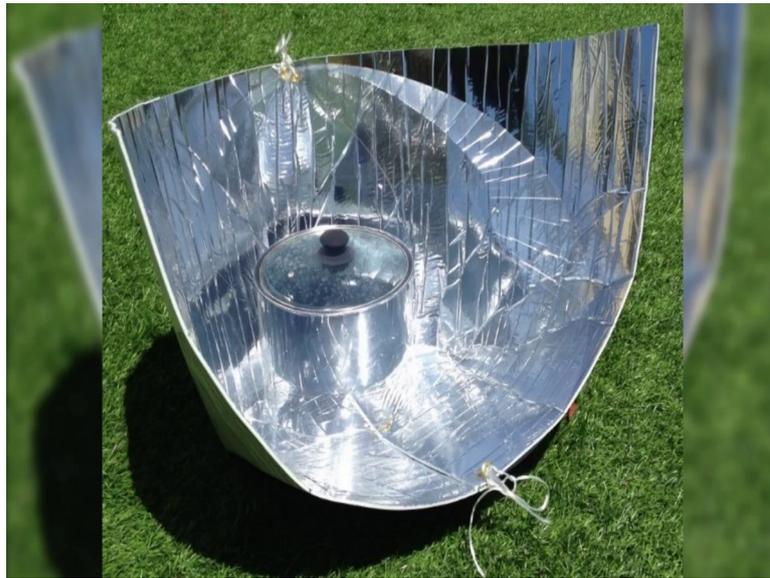


**Innovation by Design**  
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**Module – 04**  
**Start of section 3**  
**Lecture – 23**  
**Positioning the product: A convenient device for urban use**

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I was just discussing different types of solar cookers are available.

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The tube type oven, the parabolic ovens which have become really house hold products. People are taking it for picnics and they are cooking very exotic dishes in those and Auroville (Refer Time: 00:20) uses some of the sustainable technologies heavily.

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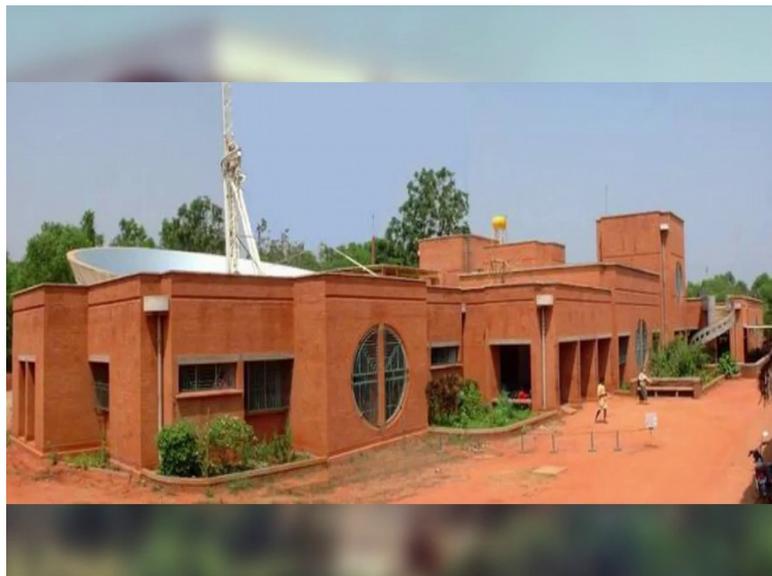


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Let it be building structures.

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Let it be cooking.

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Let it be mobility.

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In fact, I work very closely with a local people who would developed battery operated vehicle, which is a moped which runs across Auroville. (Refer Time: 00:34).

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So, they were looking at all aspects of sustainability.

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The kitchen for example, is called the solar kitchen and they use completely solar power for their food.

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Now coming to a context, where does creativity flow, what are other kitchen products.

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You know in combination I told you to look at other kitchen products which are available and why are they so, good? This is one of the first insights I and Avinash got, we were said, we have to make it as convenient as a microwave oven in the room kitchen. So, it is available close by and you have a door to open and you know put your stuff inside and cook as soon as possible.

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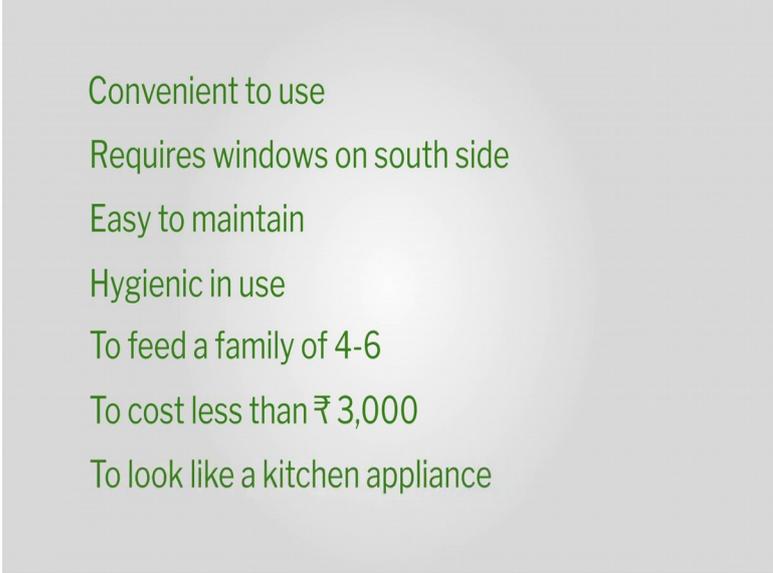
And then we said we want to use it in high rise buildings and we will like to have the convenience of a air conditioner, window air conditioner.

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So, these two are the biggest insights in the in the comprehension we got that we would like to mount it on a window, you are following; how you know interesting these two insights are. So, comprehension gives you the seed for your ideas. So, what does you know the check and the product brief look like?

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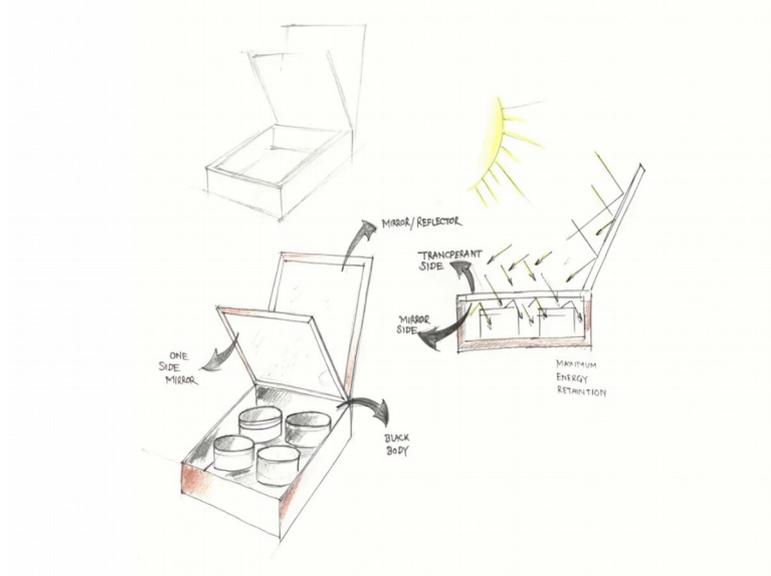


- Convenient to use
- Requires windows on south side
- Easy to maintain
- Hygienic in use
- To feed a family of 4-6
- To cost less than ₹ 3,000
- To look like a kitchen appliance

It should be very very convenient to use. We do not rid of convenience for anything else and making a product for only the people who are having south side windows where the sun is very good and we will put it to them. Then so, you have to make it very easy to maintain and hygienic.

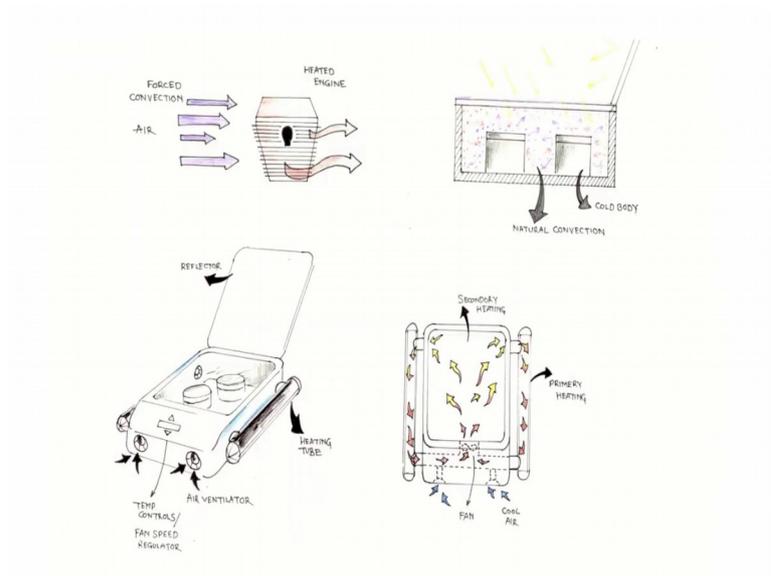
And very you know it should cook food around 4 to 6 members of a family; should cost less than 3,000 rupees and it should look like a kitchen appliance. Here aesthetics has come in, styling has come in; it should look like a kitchen appliances something which my students always add to the check list. But some time that we will put in the front, I said if looks like kitchen appliances people will buy. So, 'Form follows Function' is a very very big thing in design and aesthetics. So, Avinash went ahead initially with all his ideations you know he made lot of sketches.

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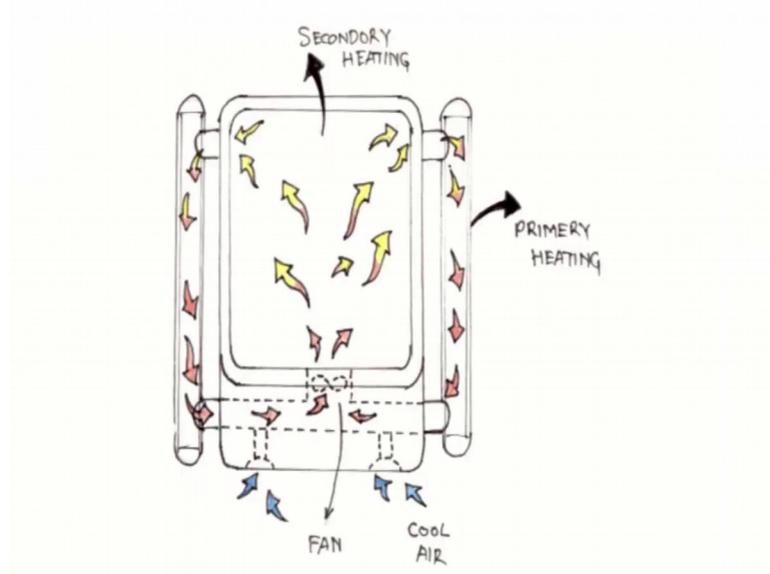
So, what happens in sketches is we always look for similar ideas to begin with.

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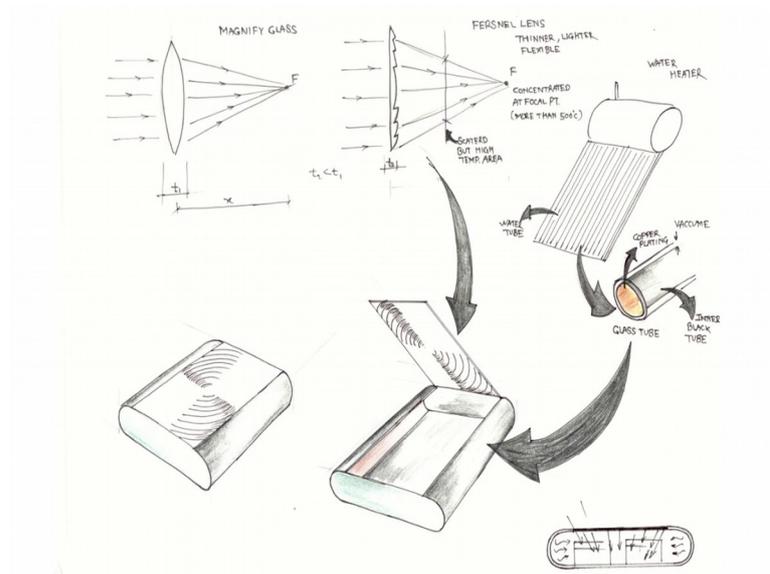
How can I improve the box type, how can I look at transfer of hot air?

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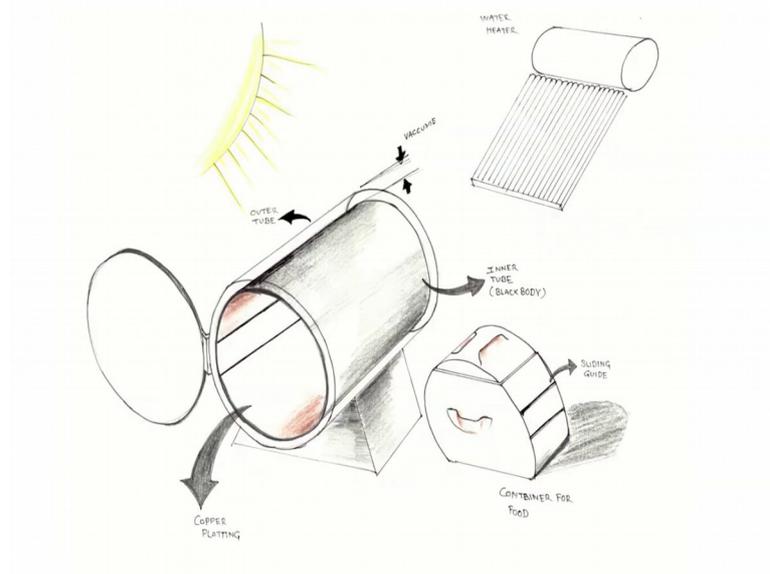
So, that you can actually start cooking with just hot air.

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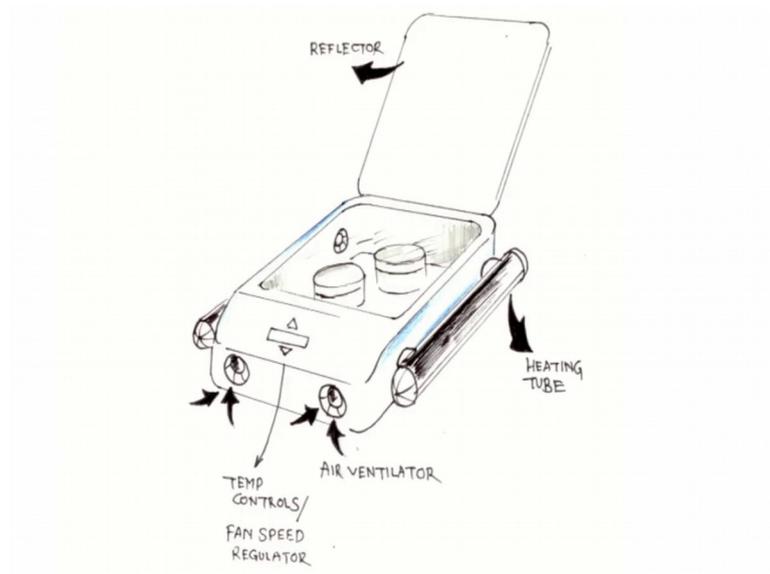
You look at using you know one side mirror. So, the cooking is faster. So, look at the ideas you have to make an idea for each problem.

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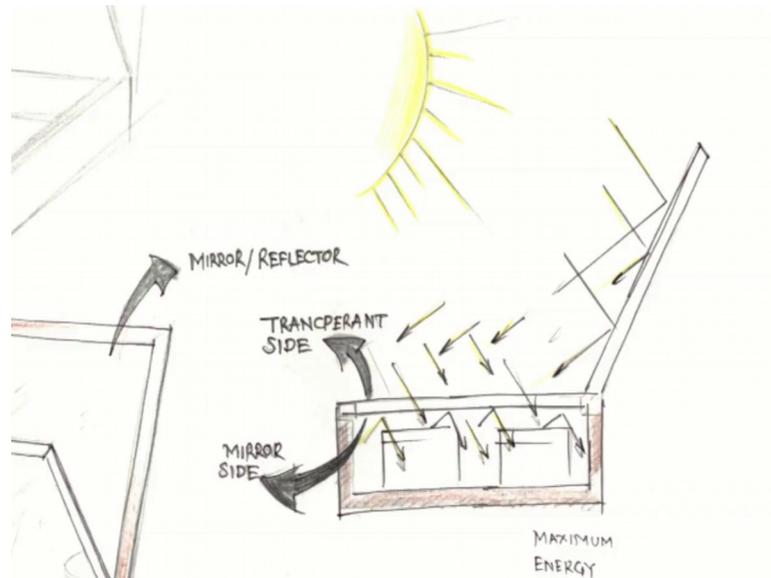
Multiple ideas it can be old or new it does not matter. If it is an issue of ease of convince of cooking, I will make a box which is openable more easily. So, you will see those ideas are very different and these ideas are important.

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Each idea which comes to you, you should sketch it out. We must all maintain a idea book, a small booklet where you can as soon as you get an idea you can sketch. Avinash sketches is look very clean and neat, but idea sketches need not be clean, they can be very bad, they can be rough and it is your idea but you should sketch it out for yourself.

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If you can write English you can sketch an idea that is what we say, all of you can write so, we can sketch. So, it is an inhibition which started in our you know our education that we stop sketching as soon as we start writing. We start going to school they said [FL] '*abhi sketching or drawing 'toh side activity hai'* (Translation: Now sketching and drawing is a side activity), it is not true. If you have get with your ideas you have to start making your sketches. So, all of you have to maintain a sketch book and more work on your ideas.