

SECONDARY STORAGE

GROUP 4

GROUP MEMBERS:

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5 STEPS OF DESIGN THINKING

1. EMPATHY

We interviewed the respondents who work as teacher and part time of novelist and also photographer

Computers always hang
when open

Device that can bring
everywhere they need.

A TEACHER AND PART TIME NOVELIST



A : Hi , I'm _____ from Group 4 TIS SECTON 8 . My group would like to have an interview with you regarding our project , the secondary storage. Would you mind to spend your time a little bit , Mr/Ms _____?

B: Hi, sure I can.

A: So , what is your job ?

B: I'm a full time teacher and part time novelist.

A: Do you facing any problem with your Pc when you want to store your work files or any application that connected to your works?

B: Yes. I did facing many problems due to my Pc always out of storage.

A: Is there any problems that you faced when you want to open your files in your PC or did you got any other problems too due to your storage?

B: My Pc always hanged when I try to open a big files or big application. Also, I need to bring my works everywhere but I don't have any device that is portable to do so.

A: Oh! I see. I hope we can invent the new device that can fulfil your desire. Thanks for your cooperation .

B : Welcome.

A FULL TIME PHOTOGRAPHER



A : Hi , I'm _____ from Group 4 TIS SECTON 8 . My group and I would like to ask some questions regarding our new project, the secondary storage. So, I heard that you are a photographer?

B: Hi, I'm ___ and yes. I do a photographer as my full time job.

A: So, here's my first question. Do you feel and problems to store your pictures and videos in big capacity?

B: Yes. It quite hard for me because I need one device that I can easily store my camera's memory and also the software that I used to edit my client's pictures and videos.

A: is there any more things that you feel frustrated when you want to store your pictures and videos?

B: I usually store it in my PC but the capacity of my computer is quite small that always make my computer hanged. But at the same time, I want the devices can be easily to bring anywhere so I can just edit my works either in my computer or my laptop.

A: Oh! I see. I hope we can invent the new device that can fulfil your desire. Thanks for your cooperation.

B : Welcome.

2. DEFINE

Our group have set the meeting session and we discussed the solution from the problems.

Can store data in huge capacity

It must be portable

It is non volatile

cheaper than the primary storage

The size of the device is not too big



3. IDEATE

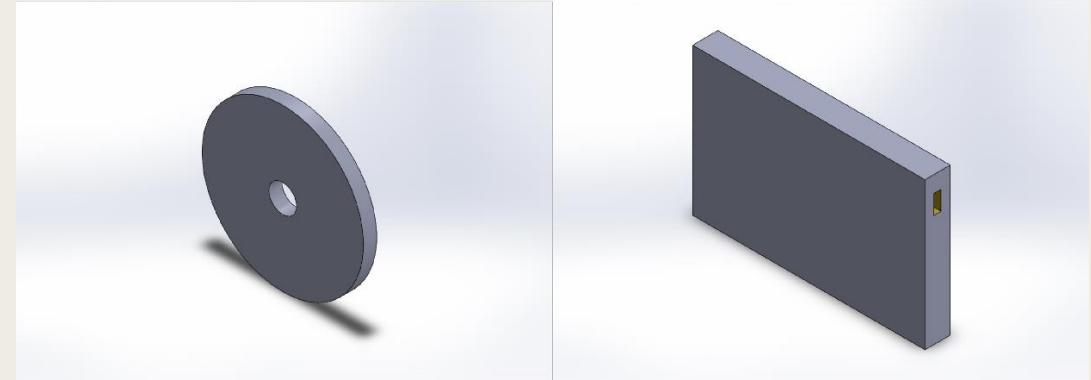
To identify whether the problems and our solution are suited for the device that we invented.

Created some designs and try to match with requirement

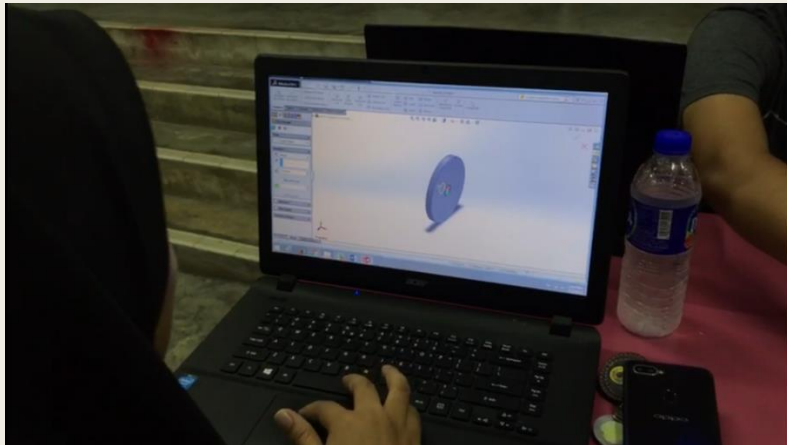
We used some application in designing the device that we want to create



We try to counter the problems by doing some design to check whether it suits or not.



We came out with few example of design that we create.



We use the online application to check the size of the design and to make it in proper design.

4. PROTOTYPE

We choose the best design for our device and do the prototype of it.



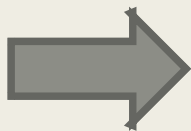
We use some boxes , foam, cellophane tape and also wrapping paper to make the prototype.



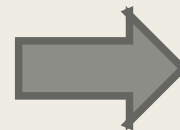
Start making the prototype.



STEP 1



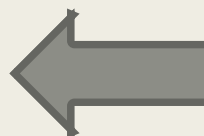
STEP 2



STEP 3



STEP 4



5. TEST

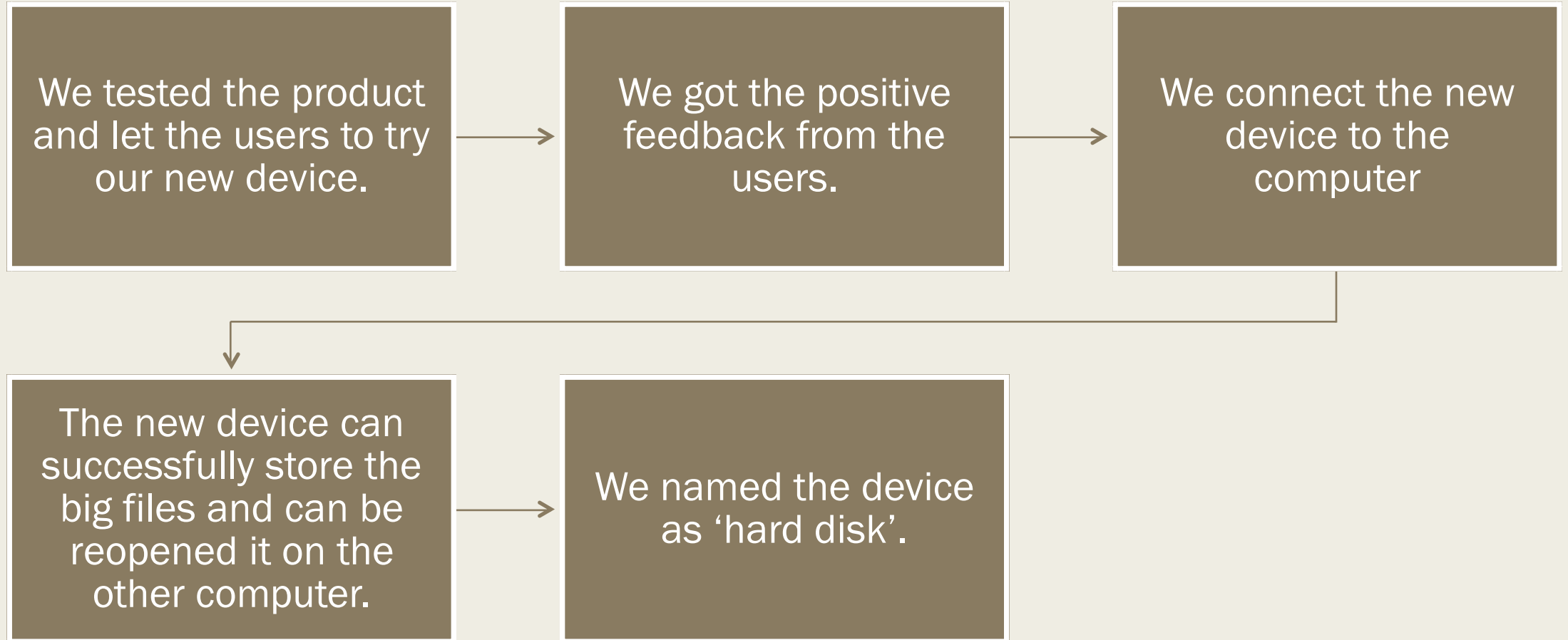
We tested the product and let the users to try our new device.

We got the positive feedback from the users.

We connect the new device to the computer

The new device can successfully store the big files and can be reopened it on the other computer.

We named the device as 'hard disk'.



- <https://www.youtube.com/watch?v=Yowt1JrNAEU&feature=youtu.be>