

Showtell_P2_PR2

I: Alright, [P2], what have you created?

P: A temperature sensor, which I am heating in the moment. It's registering a high temperature which is above 27 celsius. Em- it's a combination of my ideas- which combined 3D printing, laser cutting and em... [thinks]

I: Electronics, right?

P: Oh yes, electronics, aye.

I: Mhm.

P: When I- when we did the electronics session, I saw- well, else we were doing like the basic stuff. Then I saw the temperature sensor and the movement sensor [waving hand on side of box and make the light switch]

I: Oh yeah.

P: The movement sensor, I thought I wanted to play with those and do some with those. So the temperature sensor came out as a result of all three of those that sprang to me

I: Mhh.

P: And I wanted to challenge myself and work on something that was working. And it turned out pretty well. I also like how it looks.

I: Yeah. So, can you give us an overview what parts are what and how you did that?

P: Well. [takes the box and tilts it to show inside to camera] Inside, you can see the electronics [Zoom in] and you've got like a- the motion sensor to the right. You've got the button to your left. And to the front you've got the temperature sensor. And on top you got two LEDs. Em, one blue for the lower temperature, and a red one indicating the high temperature.

I: Cool.

P: And you got a box which was 3D printed. And as you can see, it hasn't quite finished. You still see the honey-comb structure. And the laser-cutter top with the HIGH and LOW indented into it.

I: Mhm.

P: And to make sure the box is working in the first place, we did a prototype using the cardboard [pointing to the other box], laser-cutter out to fit all- to see how it works and looks. And see how- if any adjustments need to be made. [turns it around, takes it into hand and twists it]. This is the final prototype that we did. With the first prototype we realised that we had to make some adjustments to the holes to make sure that everything would fit in perfectly, and increase the size of the inner area of the box.

I: Yeah, there was quite a lot of fiddling, right? Like doing all the measurements right and readjusting it. And deciding on where to place what and stuff, right?

P: Yeah, just to make sure all the sensor would [filling up] the holes and not fall out. So they are stuck in with the hot glue. And they are all— all in place now. So we're fine.

I: Mhm.

P: So, basically- the purpose of this box would be to give it to a disabled person who for example wants to test how hot an oven would be. Like they stick this in front of the oven, operate it with the movement sensor or the button, (whatever) suited their disability. And I could have a simple representation of if it was hot or cold.

I: Cool.

P: And in future iterations of this, it would be better to have a power source that is either internal or a small external power source that is a bit more portable.

I: Oh yeah, yeah. I mean, you tried it before with a portable mobile phone charger, right? Like a battery.

P: Yeah. So it can be used by mobile phone charger at the moment. But maybe the best solution is out there and I need to see what else can be done.

I: Yes. So would you like to do another iteration of refining it or-?

P: Probably, that will do. In one iteration of this so we can make it more refined and more easy to use. And maybe one iteration of it like wearable technology.

I: Oh yeah!

P: Because of that, em, oh the em- material that change colour on temperature..

I: Oh! The thermo-chromatics!

P: Yeah, so maybe sawing that up and make it wearable that it can be used in an (alphabetical) sense.

I: Was it because I mentioned it the other day for...?

P: Was parts of it. In my mind, so- obviously something sparks (you know).

I: Ah, nice.

P: Like as a whole doing something like that is probably wearable. That's probably the kind of solution that's (clean), appears to me.

I: Yeah yeah. Awesome. No, I also really like that you have the two ways to start measuring.

P: Yes.

I: So it is motion-controlled but also on the other hand with button.

P: Motion-control on the right. Button on the left. [pushes cardboard prototype aside to highlight finished box. Points to either side]. If it's both it ranges over disability, because at the end of the day, if a person has a weak left arm, it could be very lightly for part of them to tap at it like that. [gesture in front of motion sensor] But if people are a bit more stable, they can do it like that. [points at button side] So it is a character that suits all disabilities. In theory.

I: Cool. Em, any ideas about how- Are you going to use this device?

P: Myself? Possibly no. But I mean going to- for a disabled person who would need something like this.

I: So when you take it home now, will it be also like an award right now, for standing on a table?

P: (At least) the first version. I hope it will go on in future.

I: I guess, there are also issues with how much weight it is and how heavy. Or if you think about someone who has limited strength in the arm for example, it

might be quite hard to hold it.

P: Yeah, maybe refining it because at the bottom it also has some screw bolts. So that could be (bruising) to someone who has disabilities or something like that. So we can refine that, and make it a bit more smaller or flat.

I: But it's a very handy thing also to demonstrate your idea, isn't it?

P: Yeah, it is a good first prototype, a first (type on the way of getting to) something. Down the line it's more advanced and more proper.

I: Really good! So... any final remarks on the outcome? Are you happy with it? What went well? What went not so well?

P: I am really happy with how it turned out. There was problems with the 3D printing, but it still looks good. Everything fits in it. And all these other things that can be used as examples how it can be improved in the future.

I: Yeah. So you want to keep on making?

P: Of course!

I: Awesome. Thank you very much, [P2]!