



be for some people. The second one was his participation in Good Seed, which helped him understand theoretically why he should contribute to society.

**“I joined a bunch of activities in Good Seed. I listened to a lot of people talk about what they had experienced, and that was really moving. It really made you understand why they started a social enterprise, and why they would put so much effort into it. I was really touched.”**

Chiu wanted to dedicate himself to helping others. When such an idea grew, he started to treat his toilet assistive device seriously. He wholeheartedly wanted to launch the product so that he could help the elderly and stroke patients. However, along the way, he found out that the development process was not easy at all. There was a lot of room for

improvement, such as the stability of the product. He admitted that the product is only 30% ready, still a long way to go before it is ready for mass production. “I think I’ve kind of failed, but I don’t mind continuing with it. Or maybe, if someone wants to take it from here, I can work with them as well.” It is as though he has reached a dead end, but Chiu does not feel frustrated. This experience has already helped him grow. Going forward, he is going to find another way and open other paths in social innovation. “I don’t want to lose my passion so soon.”

08

# PERSONAL NAVIGATION DEVICE CHALLENGES LIMITED SENSES

EYERUNNER -  
WONG CHUN YIU OSCAR,  
YIP WING YIU YOYO,  
CHIU KA CHUN EDMOND



## FROM NOTHING TO SOMETHING — LEARNING TO COMPROMISE

Navigation systems were first used in aircrafts in 1912, and in cars in the 1920s. In recent years, car manufacturers have launched automated navigation systems in a bid to replace manual driving. This piqued the interest of Wong Chun Yiu Oscar, Yip Wing Yiu Yoyo, and Chiu Ka Chun Edmond in utilising the technology on humans. They learnt from the news about guide runners for visually impaired athletes. That was how they came up with the idea of using automated navigation systems to help visually impaired people walk around freely on the streets.

After deciding to work on the idea for an assignment and starting the investigation, they realised that there were a lot of limitations. They found that what they originally wanted to do would involve a lot of real-time analyses of images. Therefore, they adjusted their goals gradually, changing the target venue from “anywhere” to the sports ground, and the mode from “fully automated navigation” to navigation along a specific route.

**“We think visually impaired people deserve a quality life as much as anyone else. Now, when they want to go running, they need help from guide runners, and there aren’t a lot of them in Hong Kong. So, visually impaired people can’t go running anytime they want.”**

Not only can the navigation system help visually impaired people do sports, but it also increases their autonomy and enhances their independence. Giving them another way to enjoy sports can also improve their health and help them socialise with others. People may have the misconception that visually impaired people cannot do a lot of sports. In fact, apart from running, they can also do sports like swimming, rowing, bowling, golf, and futsal.

“ The first Paralympic Games were held in 1960 in Rome. At that time, there were only around 400 participants; in 2016, more than 4,000 athletes participated. Hong Kong athletes have gotten satisfactory results every time, and the city ranked 40th among 160 participating countries or regions in 2016, winning 2 gold medals, 2 silver medals, and 2 bronze medals. It was definitely something to be proud of. ”

The team faced numerous problems while working on the project as an extension of their school assignment. “When we got the funding from Good Seed, of course we wanted to make it big. But the more we worked on it, the more technical problems we faced. We didn’t have enough funding either.” Another issue was not being able to find people to do the trial. Participants of trial runs would have to sign a waiver and no insurance company would be willing to cover any accidents. As a result, they have been unable to test the immediacy of the system. With the limited resources, they kept modifying the navigation device — from a box-shaped gadget to a bum bag, and then to a vest. Now, they are working on the fourth generation of the navigator. In the past

year, they have been working on it two days a week in hopes of further improving the system. The three of them could not help but sigh when talking about how they felt during the process. They admitted that they had underestimated the task at the beginning. “We shouldn’t have been overconfident. Having an idea is just a start.” They had the opportunity to take part in a competition in Japan, where they realised how big the world is — it is filled with talented people and innovators who are way better than them.

They felt inferior, and the biggest blow was the fact that they did not have enough resources to solve known problems, not just mechanical ones, but also problems in high-tech computer



programs. However, they became more determined to realise their idea — the world, being so big, must have some room for them. They have been feeling contradictory, torn between frustration and optimism.

Yet, contradictions and conflicting identities have always existed. While the three of them are the backbone of the project, they are still students. They want to make it big, but it is hard to strike a balance between the project and their studies. They even have to borrow their studio from their teachers. They need a lot of space for storing hardware, so ordinary co-working spaces would not suffice.

**“We want to help people. We’d like to launch the product so that more people would know about it, and large businesses would want to collaborate with us.”**

Without copyright issues, they would make what they have developed so far available to the public and let interested parties work on the project. The reason why they participate in competitions and programmes like Good Seed is to promote their product. However, this comes with arduous administrative work and paperwork, and they need to report on their progress regularly. They see the one-year time limit as a deadline to push themselves forward. At the same time, they hope that there will be room for adjustment — the tech world is always

“ Though clichéd, it cannot be emphasised enough that disability does not determine how far one can go. Given the right conditions and opportunities, anybody can thrive. These Biomedical Engineering students from PolyU are developing a navigation device to help the visually impaired run independently in sports grounds. ”

changing, after all. Sometimes, they might have to give in to reality and lower their standards to accomplish what they originally wanted to do. “We have to adapt to changes in the environment. We cannot go on blindly at full speed all the time. We should adjust according to our abilities, the environment, and what we encounter,” said Oscar.

“ Even though the impact might be limited at times, there is at least some exposure, which spreads the idea. After all, we have to build our own experience,”

Edmond added. There is no way to achieve instant success. Yoyo also stated that there are bound to be things they cannot do.

It is a hard row to hoe. Are they perseverant, or simply foolish? Oscar pointed out that the first step to success is to act. They must seize their own opportunities. Edmond, similarly, thought that it is okay to be ambitious; when facing difficulties, they must keep their vision in mind and keep moving forward. With each experience, they will learn something new, and their passion will be as strong as ever.

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“FESTYLE”

NURTURED FROM IDEALISM:

THE LITTLE  
HOTHOUSE  
FLOWER AND  
WOMEN'S PATH TO  
EMPOWERMENT

FESTYLE -  
YIP HIU WAI DING DING