Robot Experience at Grove

The robot demonstration for kids was a fascinating experience for me. This was the first time I was working with an actual robot. I always thought working with robots is more challenging, but in this experience I learned that this is not as hard as I thought.

However, the uncertainties in the performance of the robot were really shocking for me. In my Python code, I tried to draw a “heart”. In the simulation, I got everything fine and I could draw perfect hearts. However, in the practice, almost in more than half of trials the robot did not end up in the starting point and sometimes the drawing was barely close to a heart. I think these errors were due to actuators of the robots. For example, in one of the sub-tasks, my robot had to move forward with speed 1 in 0.8 seconds, but measuring 0.8 seconds exactly and implementing it could be very challenging because the robot has some delays. These errors add up and finally the final drawing might be far from the desired drawing.

This experience was quite valuable for me. Now, I better understand the challenge that Google has to face in developing self-driving vehicles. In this application, there is no place for significant errors. However, dealing with uncertainties and minimizing variations from the desired output seems to be a very challenging problem in the context of robotics.

In the following, I have attached some pictures that I took in the event. Thank you so much for arranging this wonderful event.





