Chun-Wei Chen

Extra Credit Opportunity #1

03/15/12

During the presentation, one of the Ford engineering designer use the slide to give us a brief description about how they make use of the virtual reality technology to build a car. Since making a prototype is very expensive, they decide to use the virtual reality technology and a simple model to test how they can make a new car to be the best fit for everybody. The virtual reality technology uses eight cameras to spot the motion of the tester and simulate the scenario in a 3D graphing program, so that they can see how it will be if they really produce this car. They can use this to see if the distance between the driver and the something in the car is good enough and if the door knobs are ergonomic. They can also use this technology to simulate the person sit at the backset. It’s really cool that they can test all these things without producing a real prototype. It really saves a lot of time and money for Ford.

The programming part of the virtual reality technology is definitely related to my intended major, computer science. They use cameras to take the human’s motion and then send the data to the program in order to let the program simulate the same scenario in the screen. I think it’s like one of the topic we have covered in this quarter, MVC. When the tester moves, the events are generated and the controller handles the events and change the state of the model, and then the model notify the registered viewer in order to change the output displayed in the screen. I guess the program behind the scenes must be very complicated.

Because my intended major is computer science, I would like to know more about the programming part of the virtual reality technology. I think there are several programs work together to make this virtual reality technology work. I prefer to understand how those programs relate to others rather than to see the output only. However, I think the program behind the scenes may go way beyond my comprehension. Maybe that’s a good thing that I didn’t get to see the complex code.

I’m really happy that we got the change to attend this event. I’ve never had an opportunity to join this kind of event before. I think the virtual reality technology is really amazing. I hope I can invent some kind of program like this in the future.