sdmay18-20: A Disappearing A Pillar
Week 7 Report
October 30 - November 5

Team Members
Shengliang Liu — *Program Tester*
Guantong Zhou — *User Interface Programmer*
Han Liao — *User Interface/Image Acquisition Programmer*
Wenrui Wu — *Team Communicator*
Yixuan Wang — *Image Processing Programmer*
Yao-Wei Lee — *Team Website Designer/Image Processing Programmer*

Summary of Progress this Report
1)The size and shape of the camera interface is parallelogram shaped and is adjustable via touch. The customer can get any shape image by modifying the block area.
2)We use our own car to test the main function of our app by holding the tablet with hands. It works fine and the driver can see through the pillar.

Pending Issues
1)How to attach the tablet on the model car and adjust it to the correct angle.
2)Due to the low quality of the built in camera, we are still unable to see a clear image from the missing part no matter how much we adjust it.
3)Because we are required to spend as less as possible on this project, so we need to find a cheap but high quality extend camera.
4)With the embedded camera, we need to figure out how to zoom in and zoom out the screen in order to make the pillar looks like it "perfectly" displays objects behind the pillar.

Plans for Upcoming Reporting Period
1)We plan to get an external camera to get a higher quality image from the missing part.
2)As for the external camera, we need it to has a zoom in/out function, in this way, by using our built in app, we can adjust our display simply just manually adjusting the external camera.
3)If the external camera can not achieve the goal of zooming in/out, we will think about building our own function inside our app.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Shengliang Liu	Our team members have worked on the code work in Android Studio. The code programmer has finished the application with	5	31

	the function which people can record the size of the A pillar of their car and then use the fingers to change the screen cut as the photo shows.And then we test whether the function works. As the photo shows, we can see the hand which can not be see by the driver before. But the test is too close to the A pillar, so we plan to test it in a farther distance.		
Guantong Zhou	One of the basic idea that we are going to realize in the app is having a small "database" which contains the size of several different cars. What I did is doing some research on this data online. I chose to make research on the best selling cars in america in 2017, such as Hyundai Elantra; Chevy Cuze; Ford Fusion; Toyota Camry, Carolla; BMW 3 series, 5 series, Honda Accord, Civic.	5	31
Han Liao	As the required by the instructor, I worked on the touchable camera class during last week. Since the device we are developing on is a tablet, we can't rely on the customer to accurately measure the width and angle of the pillar by himself and input the data into our app. In order to make the camera more customizable and convenient to use, I built an adjustable block area which can be easily modified by simply touching. Now, the main camera class will show an image that can be shaped to satisfy all kind of requirement from users.	5	36
Wenrui Wu	In the last week, my main job is testing. Our goal is to see whether we can see through our tablet to see the missing part blocked by the A pillar. After our team member finishing the layout job on the tablet, I need to see if it works. Simply what I did is to hold the tablet in one hand and use another hand to adjust the screen size until we can see what is been blocked by the A pillar. But because of the low quality of the built in camera, no matter how we adjust it, we still can not see a clear image from the missing part.	5	31
Yixuan Wang	In this week, I did the testing with my team members. We sat on the driver's seat to look through the blind spot of the pillar. And other people sat around him to move the tablet to a	5	31

	suitable place, so that the drivers can see through the pillar. There is a problem after testing which is the image displayed is smaller than in real life.		
Yao-Wei Lee	What I did last week was I worked on the camera UI to adjust the size of the parallelogram. Afterwards, I also helped out with testing the tablet in the vehicle.	5	31