EE 491 WEEKLY REPORT 5

Date: 02/19/2016

Group number: DEC1616

Project title: Surveillance of dairy animals using a smartphone-based system

Advisor: Meng Lu

Team member:
Xin Tong
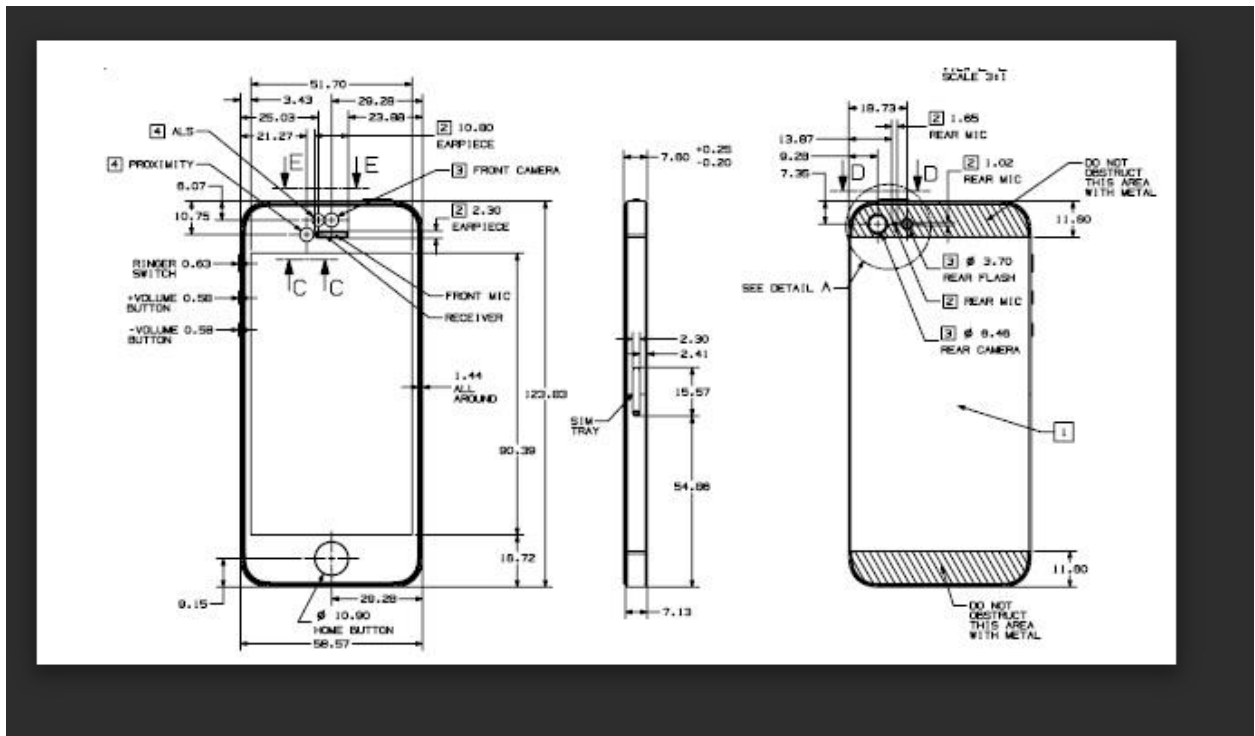Di Zhao
Tianqi Luo
Le Wei

Weekly Summary

In this week, we get more effects on the optical design that Le Wei's part. This part plays an

important role in our project. Because if he starts really well, according to his data we can

continue to do the optical design in the solidworks and use the 3D print to print the model.

These two pictures showed that the optical design.

(The database of the optical design)

On the internet we do not have the iphone 6 lens data, so we use some

parameters of iphone 5. For example, the radius of 6.48 mm. using a 0.1 average.

But iphone 6 have different value between iphone5, according to the available

information, Le Wei make the model.

(The database of the optical design)

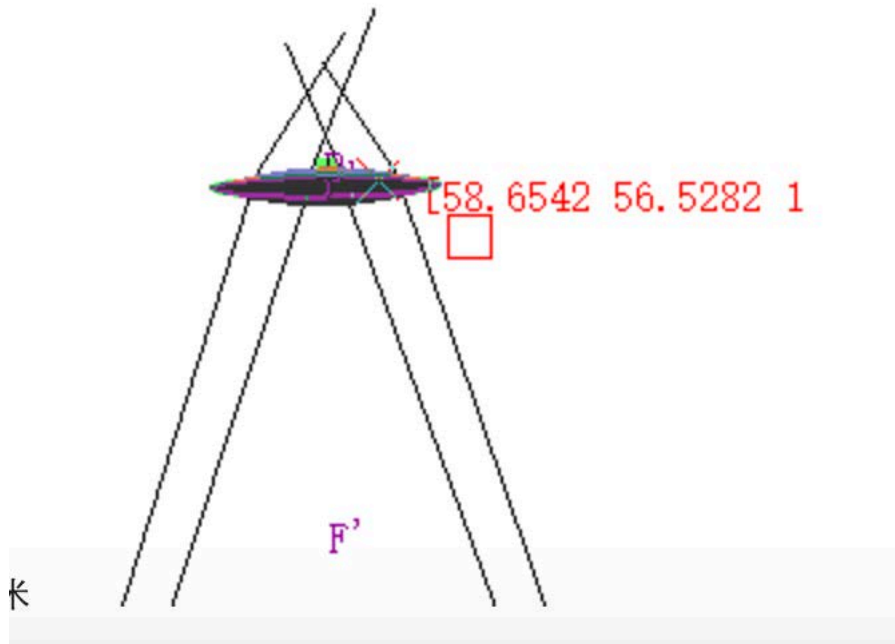Rectangular Mirror Width: 10 mm   Length: 20 mm
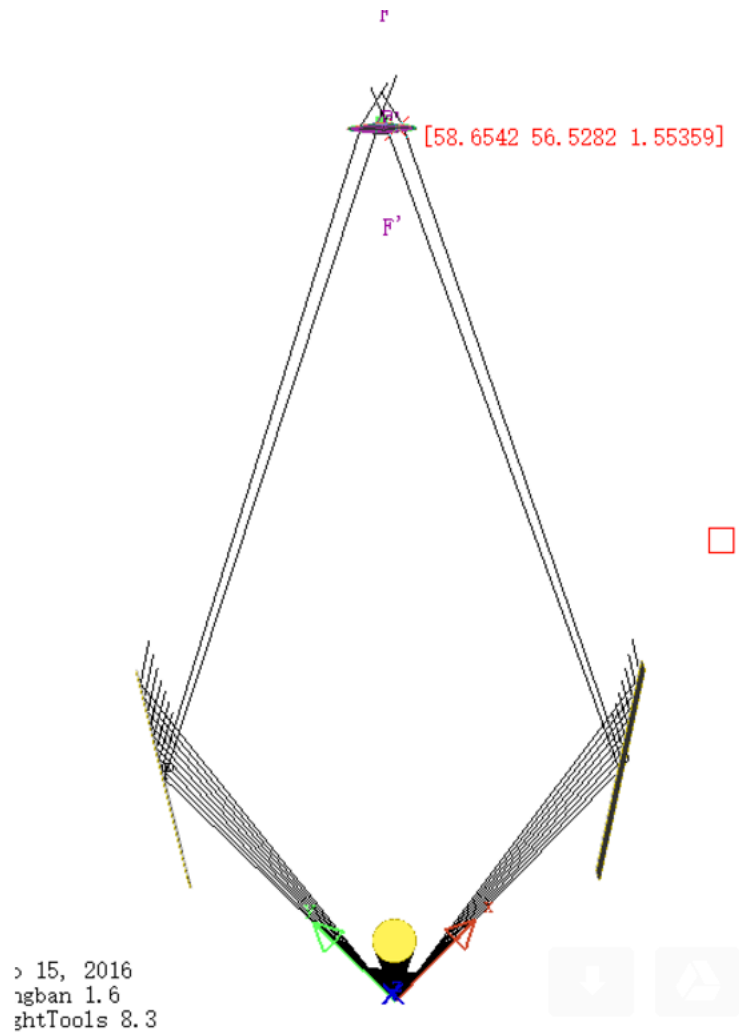
Thickness: irrelevant

Angle: 13 degrees with the central axis

Mirrors center from their respective shaft (green and red axis) of 30 mm.

Straight line from the center of the mirror as 42.42640687119285 mm

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ghtTools 8.3

Past week accomplishments

A. Di Zhao: design the new structure of the structure and consider the which positive of the

holder.

B. Xin Tong: use functions to bulit up on Xcode

C. Le Wei: design the optical components

D. TianQi Luo: find the FP paper and emphasize the PF use.

Individual contributions

NAME	Individual Contributions	Hours this week	HOURS cumulative
A	Xin Tong	5	28
B	Di Zhao	6	30
C	Le Wei	7	33
D	Tianqi Luo	6	30

Comments for this week

This week we paid more efforts for the project. Fortunately, we get good start for the optical design, although the database is not so perfect. At the rest of the part, the team member pay more attention to their own part. Tianqi Luo prepare analyze the sample that our mentor provided. Di Zhao get the first design of the structure in the solidwork, she can use the solidwork successfully. Tong Xin use the Xcode to get the sample program. It is so excited that we have a little development on our project.

Planning for next week:
A. Xin Tong:
1. Study X-code;
2. Get new observation window

B. Tianqi Luo: get the sample of the kit.

C. Le Wei: adjust the mirror of the length and get perfect of the database this week.

D. Di Zhao: get design of the new structure according to the Le Wei's database.

Summary of weekly advisor meeting:

The instructor has the meeting this week, he is out of town, so we do not have the meeting in his office. We are communication through the email. Through the email he gave us the director of the tasks next week and evaluate this week tasks.