

Penn State University

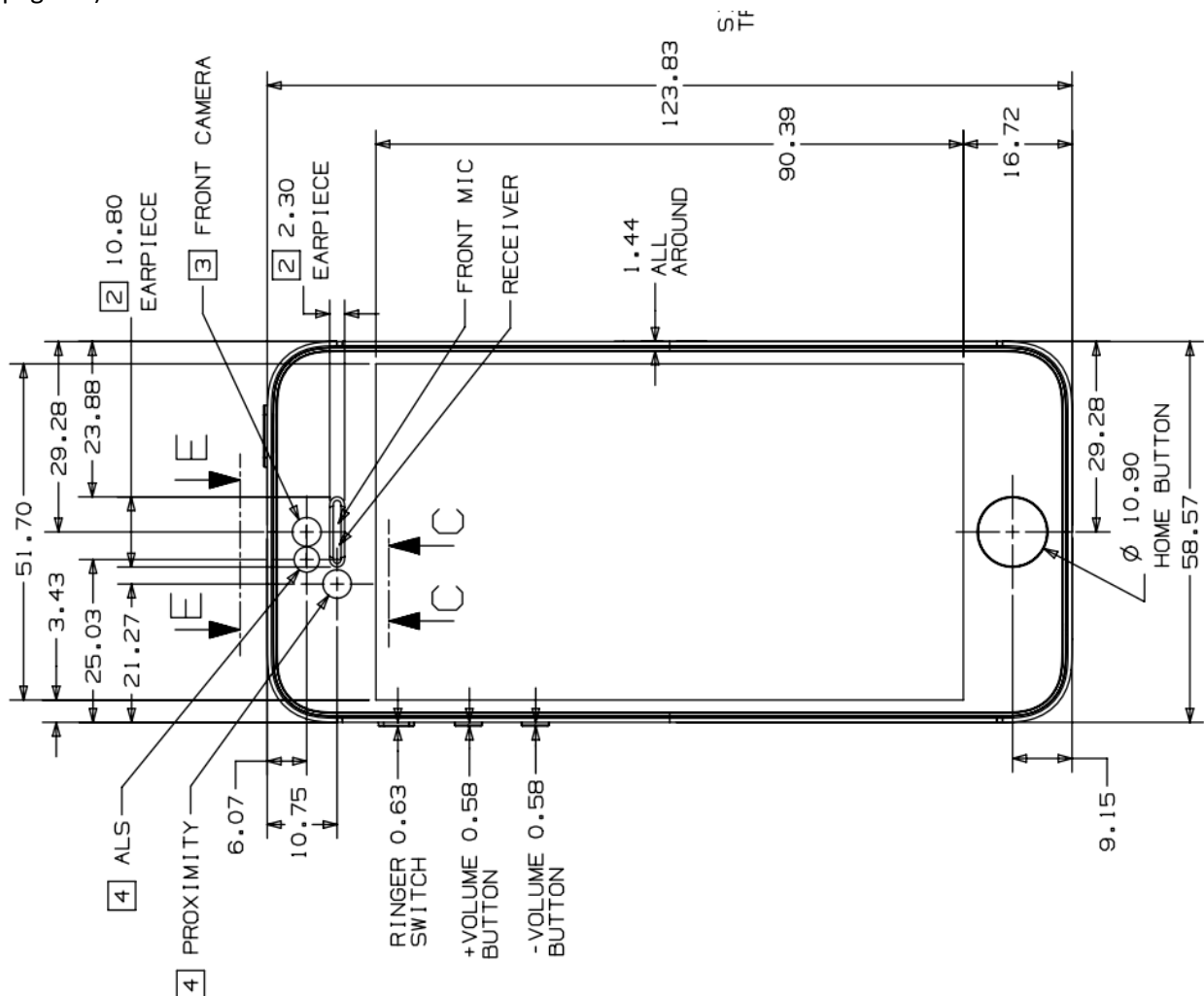
College of Engineering

Ahmed Nasser Mohammed Yousuf Al-Fahdi (ama348)

Solidworks project report:

My project is a modal of iphone 5 with some changes. Although I used official dimensions of iphone 5, I changed some of them; to make it look better.

Dimensions source: <https://developer.apple.com/resources/cases/Case-Design-Guidelines.pdf> (look page 17)



Steps:

1. I created rectangle and then I used feature Extrude to make it 3D model.
2. Make Charm with 45 degrees.
3. Use feature Extrude with value 7.60 mm.
4. For the corners I used feature Fillet with value 0.25
5. Draw the home bottom using circle in sketch part using provided dimensions.
6. Use split feature for the home bottom so that it make one sketch with the surface of the iphone.
7. Draw the ear speaker using straight slot tool, and then extrude cut it with value 0.25mm.
8. Draw front camera and then apply split feature to it.
9. Create the light sensor by using circle, and then apply extrude cut to it with value 0.25.
10. Create the sound control using straight slot tool, and then I used trim entities to get the shape of (+) and (-). Then apply extrude boss to both of them with value 0.75mm.
11. Create the back camera using circle, and make extrude cut with value 0.5mm.
12. Create a new circle inside the previous one and use feature Dome with value 0.50mm.
13. Create another circle (camera flash), and use feature split.
14. Create (3.5MM Headphone Jack), and extrude cut it.
15. Use feature Chamfer for the end of Headphone Jack with value 45 degrees.
16. Create outer speaker and microphone using feature (Linear Sketch Pattern), and then apply extrude cut.
17. Create power source and extrude cut it with value 15mm.
18. Create screws and extrude cut it with value 0.5 mm.

Final product:



