weekly log 4 for team digimon:

The objective for our project is to help prevent visual impairs from crashing into obstacles. The plan that we originally have is to divide our project into two parts. First part is to do human detection using thermal imaging sensor and the second part is to detect obstacle and staircases using ultrasonic range sensors with Arduino. After coming up with our project objective we are planning to remove the part with thermal imaging sensor to detect human since it does not relate to our project objective. Therefore, our project will be focusing on the portion to help detect obstacle and staircases for the visual impair. In our current design for that hat for visual impairs to wear, we are planning to use 3 ultrasonic sensors. 1 will be pointing directly to the front to detect obstacles at the height of the person and 2 ultrasonic sensors pointing diagonally downward at a fix degree (different degree for each sensor). For the portion to detect staircases, we will set a fix value for the height and length of the staircase steps so once the sensor detects both of this height and length we will have the android application to prompt the user that there is staircase ahead. However, the problem that we may have in our design is that if the obstacles are too small, it might not be able to detect it. Also, if somebody jumps in front of the person, the sensor might have delay before it detects that there is an obstacle.