Testing

* 3 kinds of falls [5 falls per person per fall]
* Normal activities
  + Driving a car
  + Sitting down
  + Stairs
* Values that we are collecting:
  + Did we detect a fall (Y/N)-> binomial
    - Number of false alarms
      * How far were we from the actual threshold
  + Texting time (fall + receiving message)
  + Text message failure notification

**Preparation**

* Fasten arduino circuit board to face
* Have the board connected to computer to collect data
* Sampling rate:
* Fall: fall naturally, if it feels natural to try to break your fall, you should do it

Test 1: Lateral Fall

1. Walk forward
2. Fall laterally to the left
3. Collect data
   1. Was the fall detected? (Y/N)
   2. How much time did it take for the text message to be sent?
   3. If the text was not sent, was a failure to text message sent to the user?
4. Save file as csv

Test2: Forwards Fall

1. Walk forward
2. Fall forwards
3. Collect data
   1. Was the fall detected? (Y/N)
   2. How much time did it take for the text message to be sent?
   3. If the text was not sent, was a failure to text message sent to the user?
4. Save file as csv

Test 3: Backwards Fall

1. Walk forward
2. Fall backwards
3. Collect data
   1. Was the fall detected? (Y/N) mean and std on peaks
   2. How much time did it take for the text message to be sent?
   3. If the text was not sent, was a failure to text message sent to the user?
4. Save file as csv

Test 4: ADL Sitting down

1. Walk forwards (up to 10 steps at a normal pace)
2. Take a seat
3. Nod your head
4. Shake your head
5. Collect data
   1. Was the fall detected? (Y/N)
   2. How much time did it take for the text message to be sent?
   3. If the text was not sent, was a failure to text message sent to the user?
6. Save file as csv

Test 5: ADL Stairs

1. Walk up \_ stairs
2. Walk down \_stairs
3. Collect data
   1. Was the fall detected? (Y/N)
   2. How much time did it take for the text message to be sent?
   3. If the text was not sent, was a failure to text message sent to the user?
4. Save file as csv

Test 6: ADL Stairs

1. Walk up \_ stairs
2. Bum down \_stairs
3. Collect data
   1. Was the fall detected? (Y/N)
   2. How much time did it take for the text message to be sent?
   3. If the text was not sent, was a failure to text message sent to the user?
4. Save file as csv

Test 7: ADL Driving in a car as passenger  
Will have the acceleration and change in orientation

[Include driving root map + pictures?]

1. Drive in a car straight
2. Make a right turn at stop sign
3. Make a left turn at stop sign
4. Drive over a speed bump
5. Driving around sharp corners
6. Slamming on breaks
7. Collect data
   1. Was the fall detected? (Y/N)
   2. How much time did it take for the text message to be sent?
   3. If the text was not sent, was a failure to text message sent to the user?
8. Save file as csv