We will implement a design very similar to Monitoring Sleep with WISP Tags by Enamul Hoque, Robert F. Dickerson, and John A. Stankovic. The following is out plan in developing RateMyZs.

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* Read the accelerometer every 200 ms.
* Determine the noise level if someone lay motionless.
* Find an accurate threshold, if accelerometer reading breaks the threshold then a movement has occurred.
* Count the number of movements in 30-second intervals
* Grade each interval; i.e. <10 = 1, 10-15 = 2, 16-20, 3 etc
* Plot data to a graph

There was no information on determining quality sleep within the article. Therefore we will compare our data to the popular iPhone *SleepCycle* app. From there, we will decide how much movement is allowed per sleep rating. We also need to consider movement level as the sleeper transition through sleep cycles. As a person transitions from cycle to cycle more movement is expected. This could give us a false positive. Also, different mattresses will cause different readings.