Proposal
To refine the system located that was laid out in milestone 1, which is able to determine the pain level of a patient and where the pain is likely to be.

Training
We are currently able to detect a variety of conditions that require medical attention. Once the Kinect system has been trained for the user’s body type, the user is free to move around and even leave camera. When they return, they will not need to re-train the system. This allows natural placement of the system in the user environment. Currently, training the system is performed by holding arms outward, as in figure 1.
Detection
When a user enters one of the preprogrammed positions, a counter is started. If the user does not exit the position within a few seconds, the system will trigger an alert. This delay is to prevent short movement adjustments from triggering unnecessary alarms. It is important to remember that an alarm triggered too often will go ignored. Thus, we must filter out false alarms. Figure 2 demonstrates a position that, if held, will trigger the “choking” alarm.

Next, we see the alarm interface. This is simply a backend interface that is for testing purposes only. This will NOT be the final interface that the physician or emergency response team will see in the finished system. However, it is included here as an example. Figure 3 shows this.
Demo
As a demo for this application, we will give a short presentation. The demo form is simple. The application is trained for a user, that user then mimics a stomachache, and then the alarm is observed. This will be performed in front of a live audience, and will appear as in the first three figures. We will demonstrate a victim choking, and show that the application is able to detect this. We will also show the counter-part to this application, which is the physician interface.