Why:
The measurement of pain and anxiety is very important to healthcare patients, yet is very difficult to objectively identify. Among all doctors, anesthetists might benefit most from this information, and would be able to use it to quickly and effectively improve the comfort of patients, and directly the results of their surgeries.

What:
This scope of this proposed project is to gather data features from patients, and use those features to predict patient's pain. This project coincides with my (William) research, and a device has already been created to gather data from patients, and some data has already been gathered. Patients can indicate that they are experiencing pain by pressing a button. More data will be gathered in a month from cataract surgery patients.

Pain and anxiety are medicated differently, so it is important that the algorithm differentiate between the two labels. Since pain and anxiety are both very subjective, the data will be very noisy.