Tasks

* ~~Write a program that takes in photos and gets the eye~~
  + ~~Create wrapper program so that the code in here (~~[~~http://japskua.wordpress.com/2010/08/04/detecting-eyes-with-python-opencv/~~](http://japskua.wordpress.com/2010/08/04/detecting-eyes-with-python-opencv/)~~) doesn’t use only the hardcoded photo~~
  + ~~modify the code so that it crops the eye rectangles into separate photos and outputs them with left/right labels~~
* Perfect eye detection so on normal sets it has a high ( > 80%) success rate
* Draft working pupil detection
  + for light eyes
  + for dark eyes
  + optimize for high success rate
* Draft working sclera detection
  + optimize for high success rate
* Draft working crescent detection
  + optimize for high success rate
* Develop training pairs to get ratios of the normal eye (machine learning)
  + pupil to crescent (if it’s too high or vertical/horizontal is incredibly different it might be astigmatism)
  + ratio of sclera or scleras? - for strabismus?
  + what are we doing for cataracts?
* Take photo of children
* Do image analysis to obtain ratios for the child’s eye
* Compare the normal ratios and child’s ratios
* If the ratios are off give a diagnosis