

Algorithm

- Gather 50 images of ball in varying light conditions
- Write code to plot average pixel value (B channel) against average light level of slice of each image
 - slice each image to get only ball
- Create mathematical model for data
 - Multivariate gaussian? Something else?
 - Tentative goal: Keep range narrow for accuracy, shift window to find ball
 - Contingency: What if range is so wide it ends up detecting random things as ball?
 - Shifting size window or fixed size as hyperparameter?
- Create dataset based on model and analysed data
- Save dataset in external config file
- Load dataset from file when looking for ball.
 - Select HSV value (range?) from dataset
 - Stick when ball found.
 - Resample from dataset when ball lost
- Add buttons to web interface to load ball setting files (ball color)