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EPR402 Project Progress Meeting #8

Project Lab 1

* Discussed current prototypes and agreed that expanding on them to present an integrated prototype is the main focus at the moment
* Consider using HSV colour space for skin segmentation and thresholding – it is the industry standard in a lot of applications and robust to lighting changes which have been an issue
* Robustness against changing light sources does not usually include direct light sources pointing into the lens – orientate camera in final system to account for this
* Main focus of current work should be on getting the integrated system prototype to be stable but not optimized – that is a later concern
* One discovers previously unknown interactions and problems between subsystems when integrating so get to this as soon as possible
* Don’t highly optimize one component before integrating – might be wasted or inefficient use of time when other problems appear
* Lack of integration remains a concern – main goal for next meeting
* Discussed current progress with Tensorflow prototypes for the gesture classifier and how to increase accuracy in the real-world with better training data and segmentation thresholding values
* Negative class examples often used when training ML classifiers – add negative classifiers like “empty environment” or “no hands” in hand gesture classifier to prevent spurious output
* Agreed to amend previous week’s minutes to make point about “performance specifications potentially being unrealistic” unambiguous
* End of September is the expected start date for report writing – integration needs to happen before then so plan accordingly