some modification

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1. what we currently have done is

   (a) Background subtraction
   we adopted four algorithms which is CNT, MOG, MOG2, GMG in OpenCV library. After adjusting each algorithm's parameters and manually observe the results of foreground detection, we found that MOG2 performs the best. We also implemented the background subtraction by ourselves based on static frame difference which did not perform well. Thus we adopted MOG2 for background subtraction. The following are the results of different algorithms.

   (b) Noise remove and region growing
   we used mean filter to remove the noise of background after MOG2, used dilation to try to fill the contour of person in the video. The following are the results.

2. issues to be considered

   (a) we will develop the human body model so our algorithm can detect the key points and joints automatically that need to identify the angels.

3. specific methods
   We will try different methods of tracking: optical flow, Kalman filter, Vtrack from VisionX, etc.
   we will develop human body model inspired by papers in the related fields.