

Machine Vision Assignment 4:

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1 Motion Tracker Program Description

I created a primary motion detector for this program by combining frame values, thresholding, and dilation methods. I use the difference absolute value of the mean frame values from the grayscaling process to determine if motion has occurred. If it has, the camera turns on and begins recording a 240-frame video. The program captures the pixel values of the first frame to calculate the difference of real-time frames for the bounding box's position. In my video, I draw a bounding box around the source of the motion, and it adjusts vertically based on dynamic motion.

I assume this program is not entirely proficient in lateral bounding or moving in different axes because I am accounting for those changes. After pairing other techniques, like background subtraction and canny edge detection, I now see why `findContours` is such a fantastic tool for this application. I know that my automated motion capture recording is solid, but I got stuck trying to improve this current method beyond the iteration I came up with.