Task 2 Report

The tools used in making this motion detection system were Python 2.7 and OpenCV 3.2.0.

Notes: In order for the program to work, cv2 and imutils must be installed manually and via command prompt respectively. Walk1.mpg must also be in Python27 folder, otherwise the path to the video must be specified in the program.

As explained in the video the main method of detection used was utilizing the first frame of the video and using that as a reference for all the other frames. The first frame essentially treats everything as a static image and anything that happens to come across the video will be detected by comparing the pixels of the current frame to the initial frame of the video. A threshold is made so any pixels deemed static are black, and any pixels whose intensity value changes exceed the threshold are made white. As someone or an object moves across the screen, their presence changes the pixel values of the camera, making rough shapes of white as an indicator to the program that something is there. The program then uses a bound rectangular frame to tract these white shapes of pixel intensity, and applies it to the main video feed, allowing accurate tracking of any individual or object that comes through the video.