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ASN4: Let's Advance Our Robot Vision!

Step 2:

5. I decided to use the cv2.TM_SQDIFF method because although the detected point is the same according to the OpenCV documentation, I felt like the way the TM_SQDIFF method was able to identify the bumps was something that would apply to this project, especially since the barrel was at a different "depth" than the other objects. I noticed that even after using the different methods, the template was still matching at nearly the same level as with the TM_SQDIFF levels.

6. In order to do template matching with color, I think a potential way to go about doing that would be by converting to a color space like HSV. Then, since we will see each frame in that color space, then we can check how close each of the colors are to the template using the definition of each color, and then try to use template matching that way.

Challenges:

I had to find out that I had to resize the template in order for it to match properly. Before, I was getting just a large rectangle around the whole frame which was incorrect.