First, we detect the images then crop them, then we resize the images to detect the 4 edges of the box on each side, then we calculate the average color of the center of 4(upper, lower, left, right) sides for each side of the box and we choose the center duo to its more representative of the whole color, then we compare the side with each other to generate the final images. To do that we used the gaussian method and threshold and color detection with RGB at the start then we found out that HSV Is better underwater, because HSV separates luma, or the image intensity, from chroma or the color information so that gives us a wider range of values This is very useful underwater, and gaussian was chosen for its ability to reduce noise and smoothing the image.

input



Output





The left sides of box