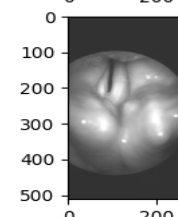
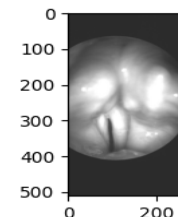
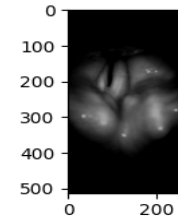
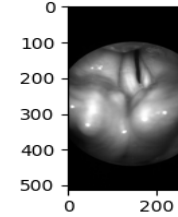
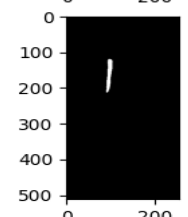
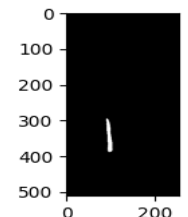
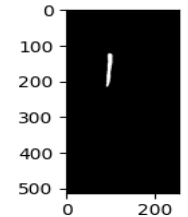
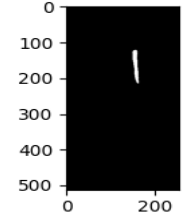


Transformed Images



Transformed Image Masks



```
import numpy as np
import matplotlib.pyplot as plt

def calculate_iou(rect1, rect2):
    # Calculate intersection coordinates
    x_left = max(rect1[0], rect2[0])
    y_top = max(rect1[1], rect2[1])
    x_right = min(rect1[0] + rect1[2], rect2[0] + rect2[2])
    y_bottom = min(rect1[1] + rect1[3], rect2[1] + rect2[3])
    # Calculate intersection area
    intersection_area = max(0, x_right - x_left) * max(0, y_bottom - y_top)
    # Calculate union area
    union_area = rect1[2] * rect1[3] + rect2[2] * rect2[3] - intersection_area
    # Calculate IoU
    iou = intersection_area / union_area
    return iou
```