EDA_Transfer_Test

June 24, 2025

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1 Imports & Utils

[1]:
```
from pathlib import Path
import torch
import torchvision
from PIL import Image

image_to_tensor = torchvision.transforms.ToTensor()
tensor_to_image = torchvision.transforms.ToPILImage()
```

2 Prepare Directory

Uncomment the below cells to untar the sample directory!

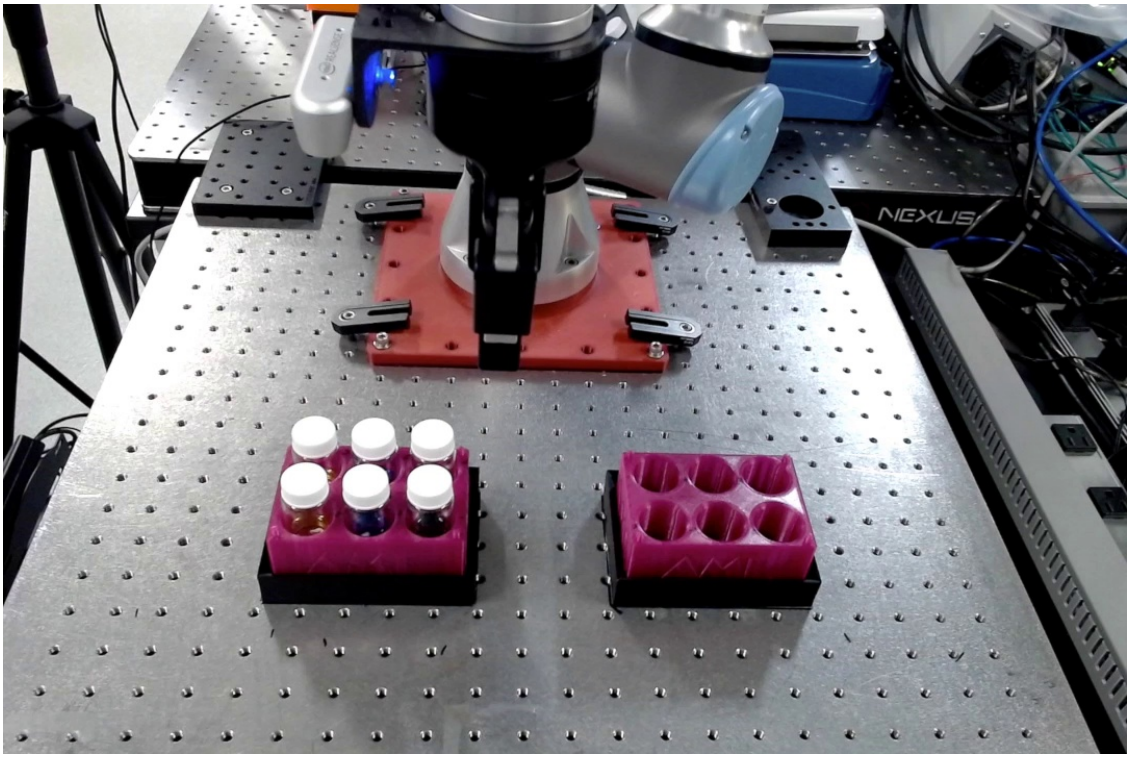
[2]:
```
# !ls
```

[3]:
```
# !tar -xvf VialsWithColor_Every10th_Subset.tar.gz
```

3 Vials

[4]:
```
frame = Image.open('VialsWithColor_Every10th_Subset/0000.jpg')
frame
```

[4]:



4 Masks

[5]:
```
vial_mask = torch.load('mask0_vialswithcolor_every10th_subset.pt')
vial_mask.shape, vial_mask.dtype
```

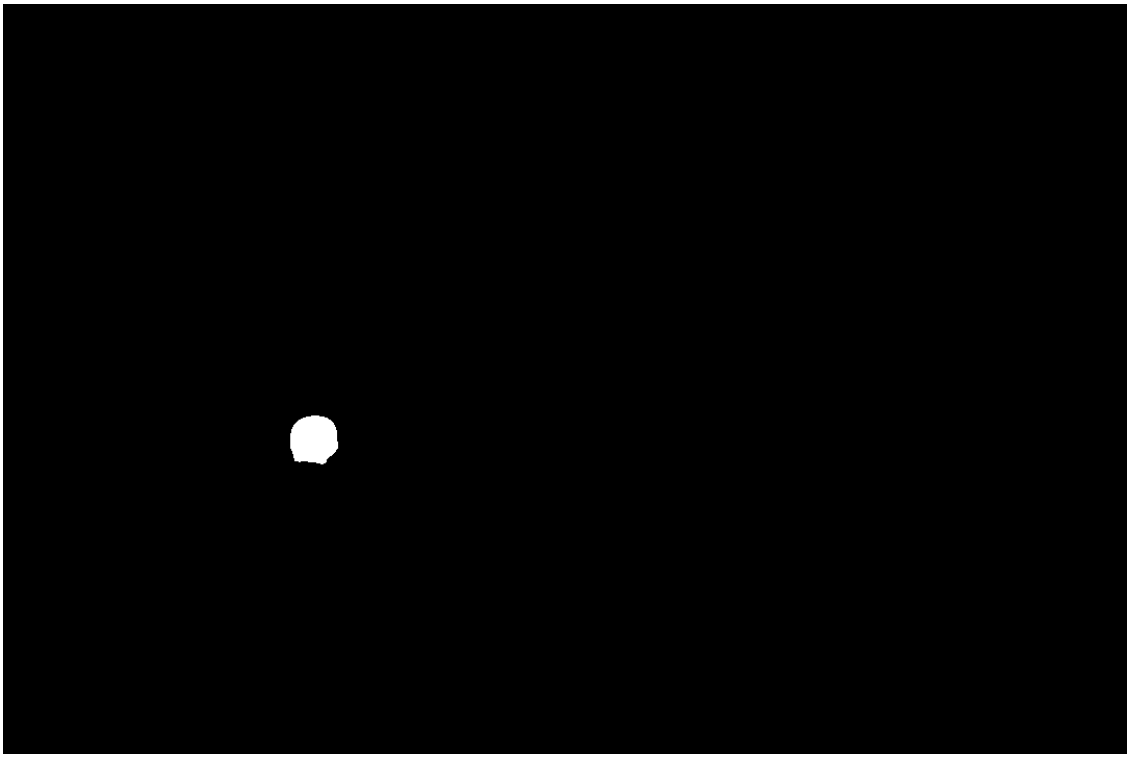
[5]:
```
(torch.Size([700, 1, 720, 1080]), torch.bool)
```

[6]:
```
vial_mask = vial_mask.float()
vial_mask.dtype
```

[6]:
```
torch.float32
```

[7]:
```
tensor_to_image(vial_mask[0])
```

[7]:



[8]:
```
mask_tensor = vial_mask[0]
frame_tensor = image_to_tensor(frame)

frame_tensor.shape, mask_tensor.shape
```

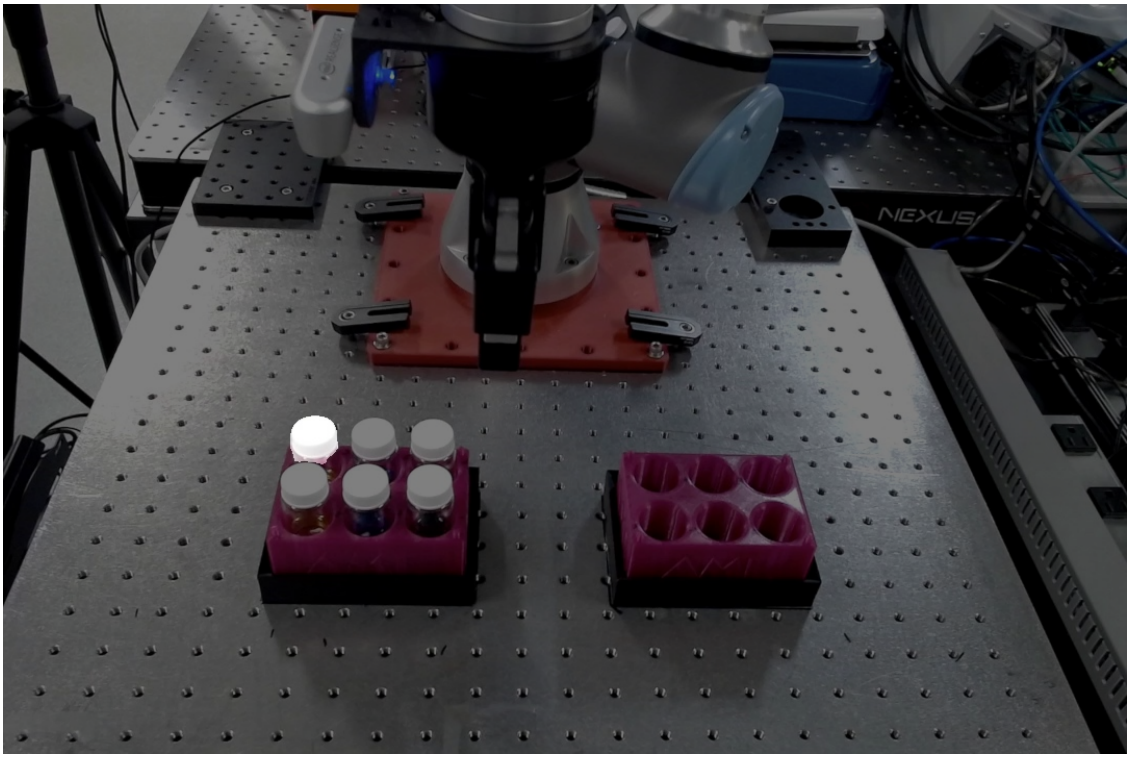
[8]:
```
(torch.Size([3, 720, 1080]), torch.Size([1, 720, 1080]))
```

[9]:
```
overlay = (frame_tensor + mask_tensor) / 2
overlay.shape
```

[9]:
```
torch.Size([3, 720, 1080])
```

[10]:
```
tensor_to_image(overlay)
```

[10]:



5 Fin