How to detect two different colors using `cv2.inRange` in Python-OpenCV?

Ask Question

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How can I define "lower" and "upper" range of two different color, such as red and blue (because red and blue are not next to each other in the HSV color)

This one belongs to red:

```
lower_red = np.array([160,20,70])
upper_red = np.array([190,255,255])
```

and this one belongs to blue:

```
lower_blue = np.array([101,50,38])
upper_blue = np.array([110,255,255])
```

I tried to combine them using if condition or make their own function but not work, can you guys show me the solution?

P/s: OpenCV in Python

opencv

edited Jan 12 '18 at 8:52

Silencer 金

6,965 3 17 36

asked Jan 5 '18 at 8:17

Nhiên Ngô Đình

18 1 4

I don't speak Python, but normally you would make mask for each colour and OR them together. – Mark Setchell Jan 5 '18 at 11:26

stackoverflow.com/a/32523532/2836621 may help – Mark Setchell Jan 5 '18 at 11:38

2 Answers

9

As you get two masks of `color` s, then use `cv2.bitwise_or` to get the final mask.

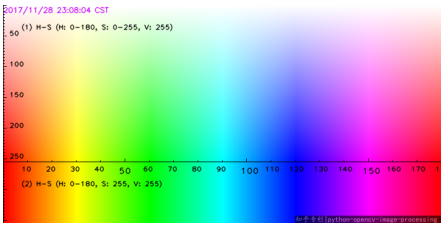
```
import cv2

## Read
img = cv2.imread("sunflower.jpg")

## convert to hsv
hsv = cv2.cvtColor(img, cv2.COLOR_BGR

## mask of green (36,0,0) ~ (70, 255,
mask1 = cv2.inRange(hsv, (36, 0, 0),

## mask o yellow (15,0,0) ~ (36, 255,
mask2 = cv2.inRange(hsv, (15,0,0), (3

## final mask and masked
mask = cv2.bitwise_or(mask1, mask2)
target = cv2.bitwise_and(img,img, mas

cv2.imwrite("target.png", target)
```

Source:

Find green and yellow(the range is not that accurate):

BTW, to get more accurate range, here is a refer map in my related answer:

[How to define a threshold value to detect only green colour objects in an image :Opencv]



answered Jan 5 '18 at 16:31

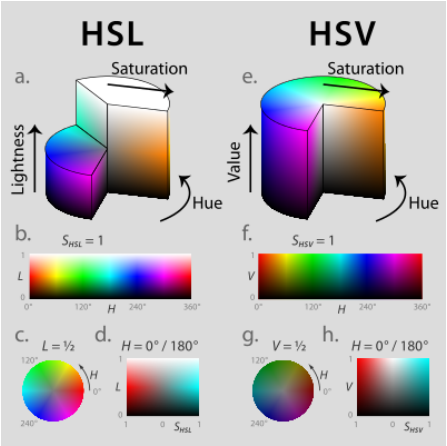
Silencer 金

6,965 3 17 36

Thanks! It saved me. – Prakash
Jan 29 '18 at 12:56

1

The below image shows the HSV Colour space, which works using Hue, Saturation & Value (or lightness).



When working in the HSV colour space it is important to remember this and that concepts such as Red & Green are a sort-of conversion back to a different data type.

Your upper and lower boundaries can tehrefore only be one point in this space but can include parts of the red and blue spectrums, i.e. purple. You would need to select threshold values that meet the criteria of whatever processing output you need.

Either that or run two seperate loops, the first to threshold out the Red, and the second to threshold out your blue and then blend the two images together using OpenCV Blend functions. See here for blending two colour spaces.

answered Jan 5 '18 at 8:25

GPPK
4,807 3 18 45

I am working with traffic sign, one of them is red and the other is blue, I cannot blend them together. Is there any way to setting 2 different range or just run two separate loops? – Nhiên Ngô Đình Jan 5 '18 at 9:10