Task 2B: Detect colored object from the given image and find its pixel co-ordinates

blogpost-style , task-2

Saail #1 October 17, 2022, 1:18pm

@sd22

Aim:

The aim of this task is to detect object from the given image and find its pixel co-ordinates.

Resources:

1. **Basics of opencv**

> For more detail description you can refer **opencv official documentation**.

Problem Statement:

In this task you will use computer vision techniques to find the pixel co-ordinates of the yellow block kept on the arena.

- Download the **image** named yellow_detect.jpeg. You will see a yellow block kept on the satellite image.
- Use image processing technique to detect the yellow colored block kept on the arena.
- Find the pixel co-ordinate of the center of the detected block.

> Hint: Use image thresholding technique and then use proper filtering to extract only the block from the satellite image.
> You are free to use any other approach.

Submission instructions

- Task 2b submission requires: **python script and a text file.**
- Name of the **python script** should be strictly **task2b.py** and the **text file** should be **requirements.txt**
- Your script (**task2b.py**) should expect a file named **yellow_detect.jpeg** in the same directory.
- **task2b.py** file should include your script and should print only the output of the x and y co-ordinates of the pixels and then should terminate after printing the output. Your script **should not** display the image or should not run in a loop.
  example of output will look like:

```
saail@eyantra:~$ python3 task2b.py
607 293
```

Only integer values of both x and y pixel co-ordinates should be printed on the terminal with out any space or any text.

- **requirements.txt** file should include all the libraries and modules you have used for running the script. Add all the names of the modules and libraries used, one below the other.
  Your *requirements.txt* file will look something like:

```
opencv-python
numpy
```

If you have installed any other python packages, add them on the subsequent lines as above

- Finally zip the `task2b.py` and the `requirements.txt` file. The zip should contain only 2 files in the root directory, DO NOT make a folder and then zip, directly zip the two files. You can use this command to zip the files. Use this command only after you have named both the files correctly.

```
zip -r SD_<team_id>_2b.zip task2b.py requiremnts.txt
```

This should be the structure of zip file
|__SD_1234_2b.zip
… |__task2b.py
… |__requirements.txt

> **Your task will not be evaluated if above instructions are not followed strictly.**

Deadline

Deadline for submitting Task 2B is 27th October 2022, 23.59 hrs IST.

3 Likes

Smit closed #2 October 18, 2022, 10:51am

Task2b submission instructions