Count Dice Dots

At this location:

https://www.dropbox.com/sh/xdmglbl8mpoire6/AABhdnuML7sWm0Y3uGyMKD_ca?dl=0

You will find the following:
-a copy of these instructions
-6 images of dice titled “dice1.png” through “dice6.png”
-6 images titled “example_output_1.png” through “example_output_6.png”

Using OpenCV write a C++ program that counts the dice dots for each die, and also the total number of dice dots in the image, and displays this information on an output image similar to “example_output_1.png” through “example_output_6.png”. The following considerations apply:

- Your program should show the final output image to the screen via cv::imshow() and should also write the final output image to file via cv::imwrite() so your output images can be included in your GitHub repo (see below). Of course your program can also show intermediate processing step images if you’d like or if this would be helpful for your development.
- Your program should work on images 1 - 6, and any very similar images, i.e. same wooden table background, same size dice, same lighting, but possibly different numbers of dice or different numbers showing on the dice.
- You may assume that each die will be completely within the image or not in the image at all, i.e. no die will be partially shown on the border of the image.
- The dice will not be touching each other or overlapping each other in any way.
- Try to make your program flow well and be as readable as possible and properly commented
- Your program does not necessarily have to get 100% accuracy, do as well as you can (this challenge is not especially difficult, however, therefore you should be able to get relatively close to 100%, i.e. 50% accuracy would be unacceptable).

When complete, make a repository on your GitHub account (if you do not have a GitHub account go ahead and create one, it’s free and does not take even 5 minutes to set up) and upload the following:
-all your project code
-your 6 output images corresponding to the 6 test input images