Documentation

Main Program Name: CookieChecker.py

Running example: runthis.py

This Program is built to find the properties of a cookie, and check if the cookie is acceptable to given standards

Functions in the program:

|  |  |  |
| --- | --- | --- |
| Function Name | Parameters Required | Use of Function |
| performChecks | Image, Minimum number of chocolate chips (default = 5) | This function returns a dictionary showing weather the cookie passes all the tests |
| countchoco | Image | This function returns the number of chocolate chips visible on the cookie |
| finddiameter | Image | This function returns the horizontal and vertical diameter in inches of the cookie |
| findl | Image | Internal function to find contours in the image |
| region\_interest | Image | Internal function to find the region of interest in the picture |
| midpoint | ptA,ptB | Internal function to find the midpoint of a detected box |
| hex\_colors | Image | This function returns the top 3 hex codes which comprise the cookie |
| circle\_check | Co-ordinates of pixels | Internal function to find a circle of certain radius around a pixel |
| circle\_equation | Radius of circle, Co-ordinates of the pixel, Image | Internal function with an equation of a circle |

Sample code:

To find Diameter:

import CookieChecker

import cv2

img = cv.imread(‘<filename>’)

print(CookieChecker.finddiameter(img))

To find number of chocolate cookies:

import CookieChecker

import cv2

img = cv.imread(‘<filename>’)

print(CookieChecker.countchoco(img))