## ADD VISION TO YOUR PI

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EmbeddedLance

**BLOBS AND CONTOURS** 

# **BLOBS**



### ofxCvBlob

- · area
- · centroid
- · length
- $\cdot \ bounding Rect$
- · vector <ofPoints> pts
- · hole

# **CONTOURS**



#### ofxCvContourFinder

- resetAnchorPoint(), resetAnchor() and setAnchorPoint()
- findContours()
  - · input
  - · minArea
  - · maxArea
  - · nConsidered
  - · bFindHoles
  - bUseApproximation

.

# CODE



### detectAndDrawContours()

· Get the red, green and blue channels using

```
convertToGrayscalePlanarImages();
```

- · Subtract blue and green channels from the red channel
- · Threshold the resultant gray image using

```
red.threshold(thresholdValue);
```



 Now find contours on this thresholded image with the instance of the ofxCvContourFinder class

```
contourFinder.findContours(red, minArea, maxArea, nBlobs, detectHoles, true);
```

· Draw each contour using the blobs returned in contourFinder.nBlobs using a for loop

```
for (int i = 0; i < contourFinder.nBlobs; i++){
contourFinder.blobs[i].draw(x, y);
}</pre>
```

# YOU CAN NOW DETECT AND MANIPULATE BLOBS AND CONTOURS

**USING OPENFRAMEWORKS:**)