


## ASSIGNMENT-7(B)

### Exercise 16: Recognize components

Read in the image 'components and threshold it (make sure that the objects are connected in the threshold image). Now try to differentiate the transistors (three-legged), capacitors (big) and resistors (small) using the techniques learned in this chapter. Optionally, you can differentiate the current stabilizers from the transistors (they have a hole in them), and the ceramic capacitors from the electrolytic capacitors (the round ones are ceramic). 'components' exercise goal. This colored image was generated with the command

```
 >> joinchannels('RGB',(cerco+elco+stab)*255,...  
                (cerco+res)*255,(trans+stab)*255)
```

Ans. The generated colored images differentiate the types of electronic components from each other. Five colors have been generated and assigned to each corresponding electronic component as follows:

- 1.) Green - Resistors
- 2.) Red - Electrolytic Capacitors
- 3.) Blue - Transistors
- 4.) Pink - Stabilizers
- 5.) Yellow - Ceramic Capacitors