

# Defect Analysis Report — CircuitGuard AI

Report ID:	RPT-8EC42D7E
Generated On:	2025-11-12 13:49:27
Model:	ResNet50 (custom)
Device:	cpu

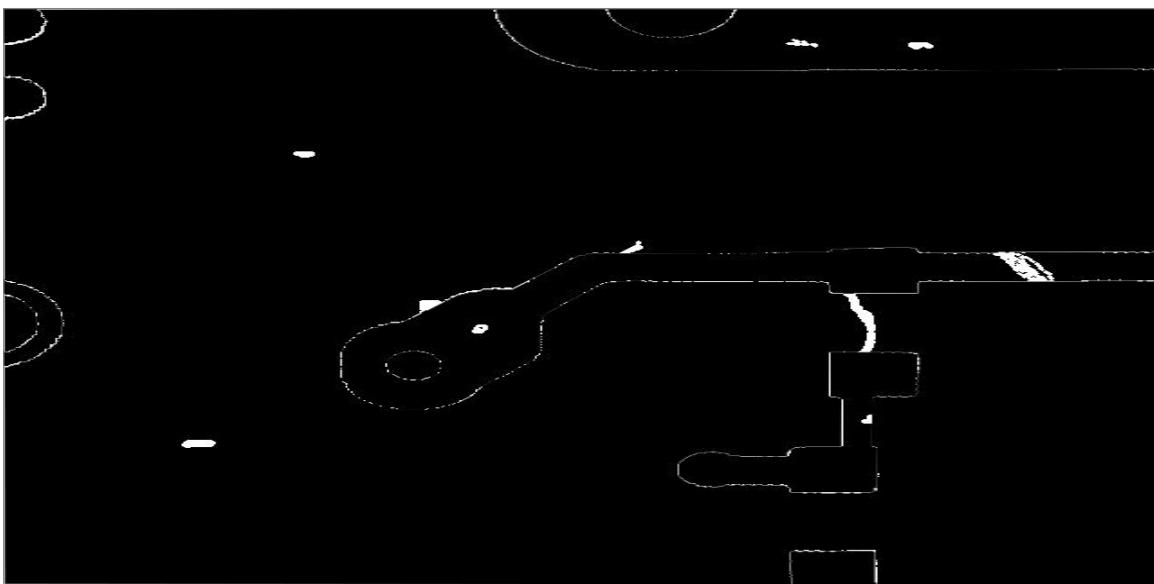
## Executive Summary

Detected 6 defect(s). High:4, Medium:2, Low:0. Avg conf: 79.62%.

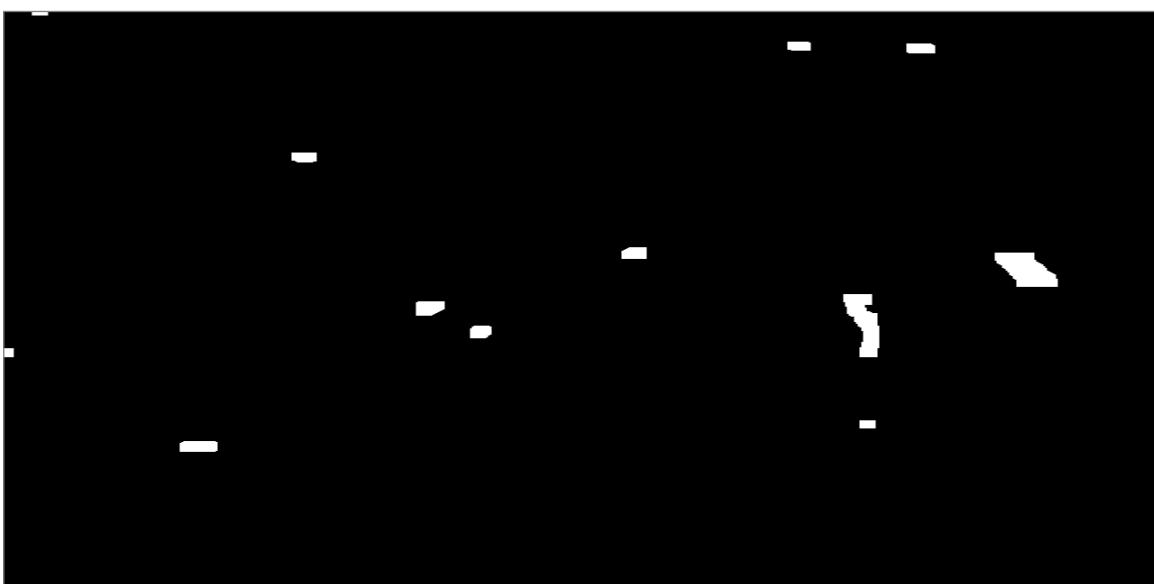
Metric	Value
Total Defects	6
High Confidence (>=80%)	4
Medium Confidence (60-80%)	2
Low Confidence (<60%)	0
Average Confidence	79.62%

## Input & Analysis Maps

### *Difference Map*

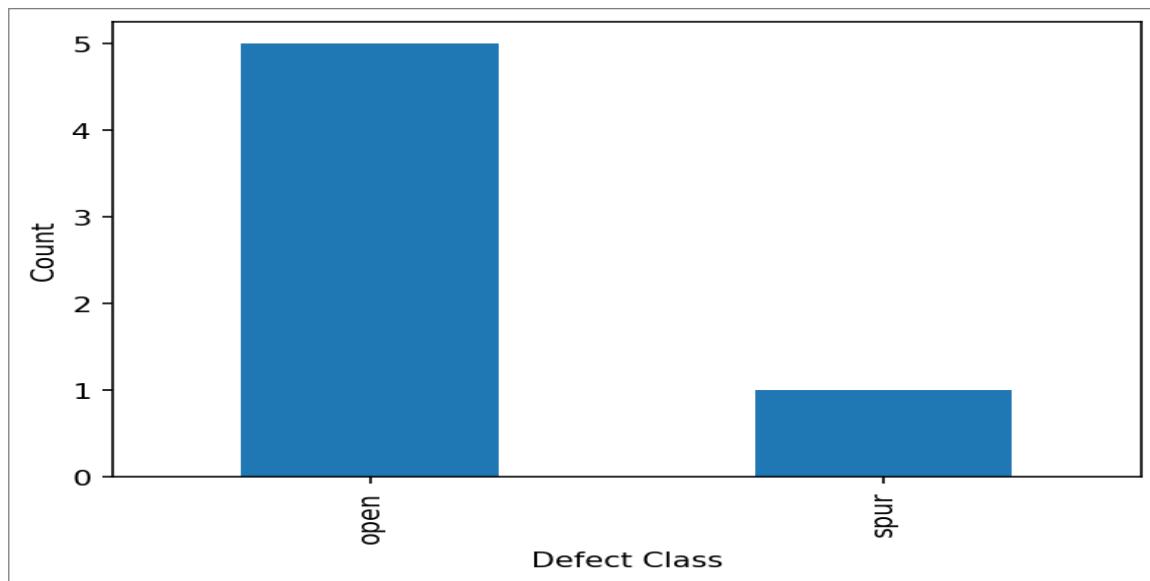


### *Binary Mask*

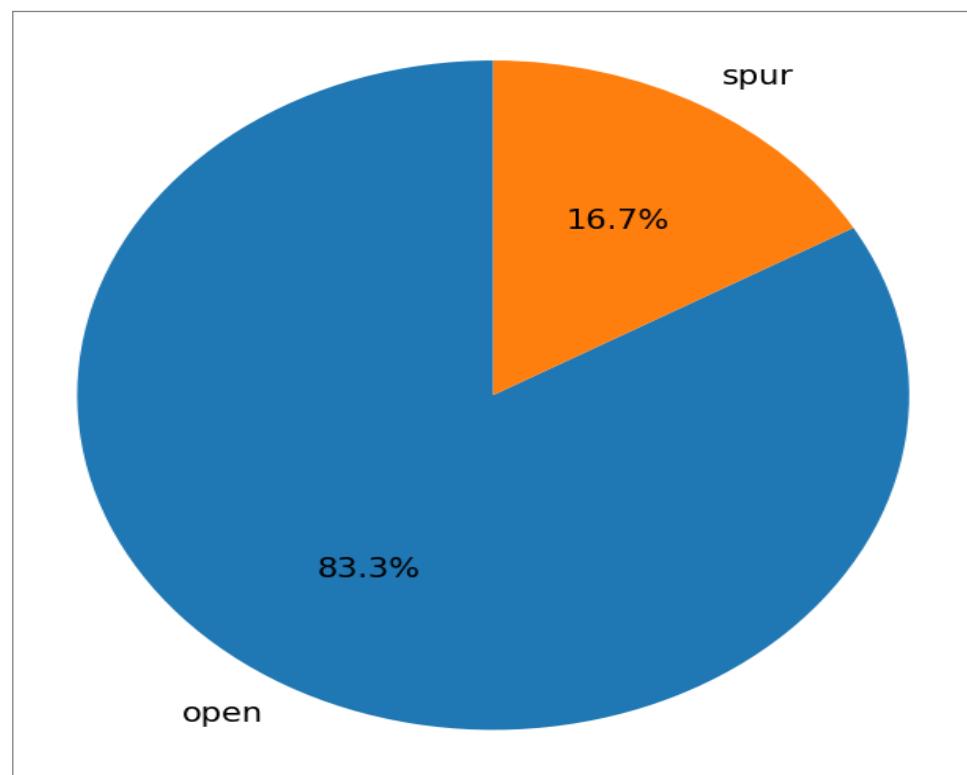


## Statistical Charts

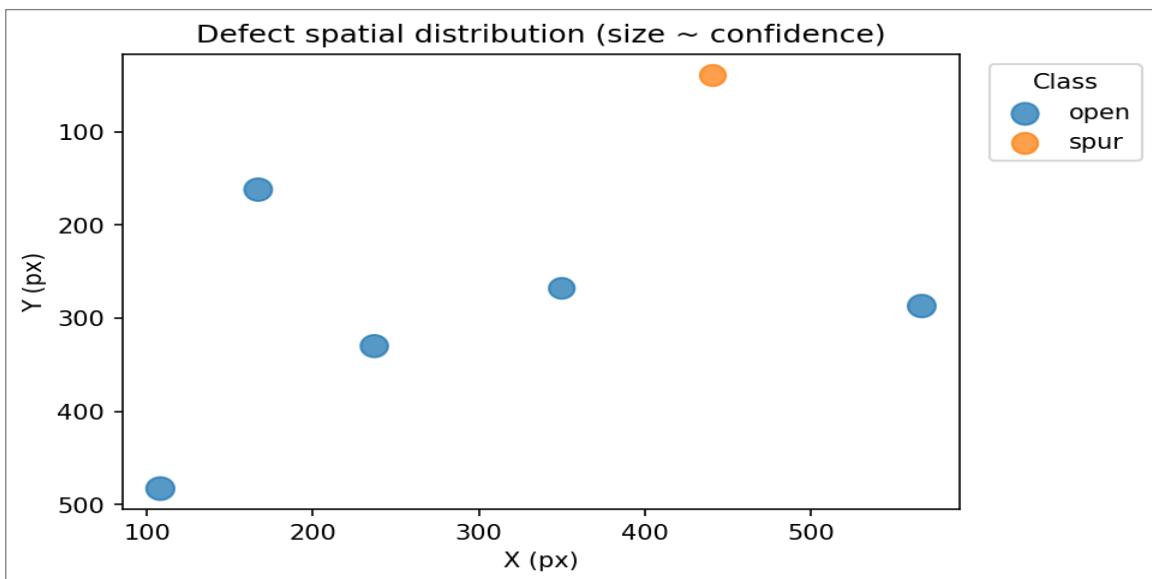
**Defect Count by Class**



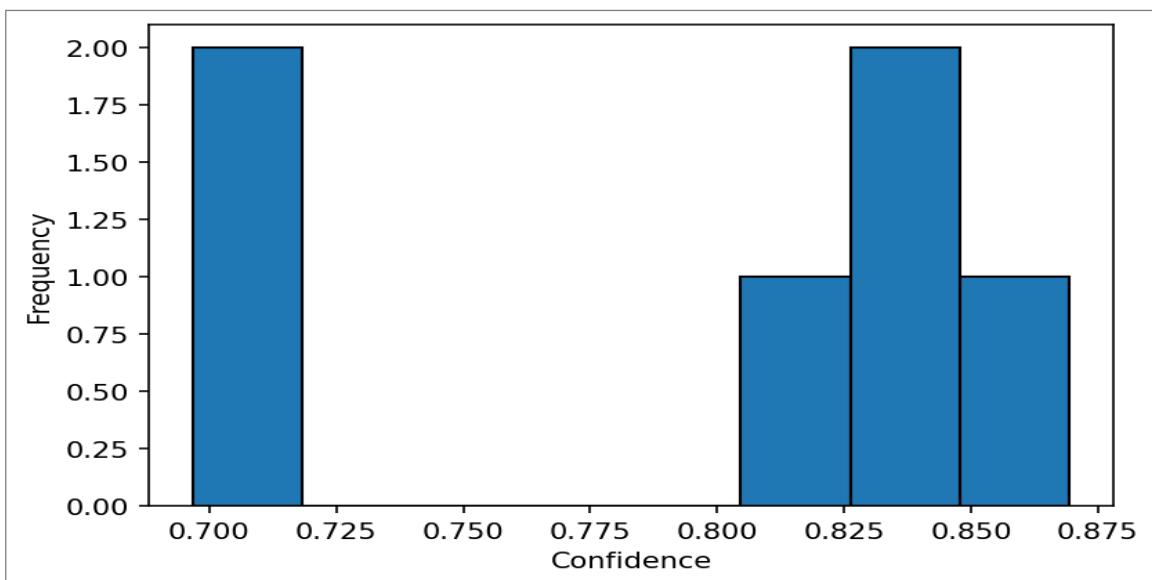
**Defect Distribution (Pie)**



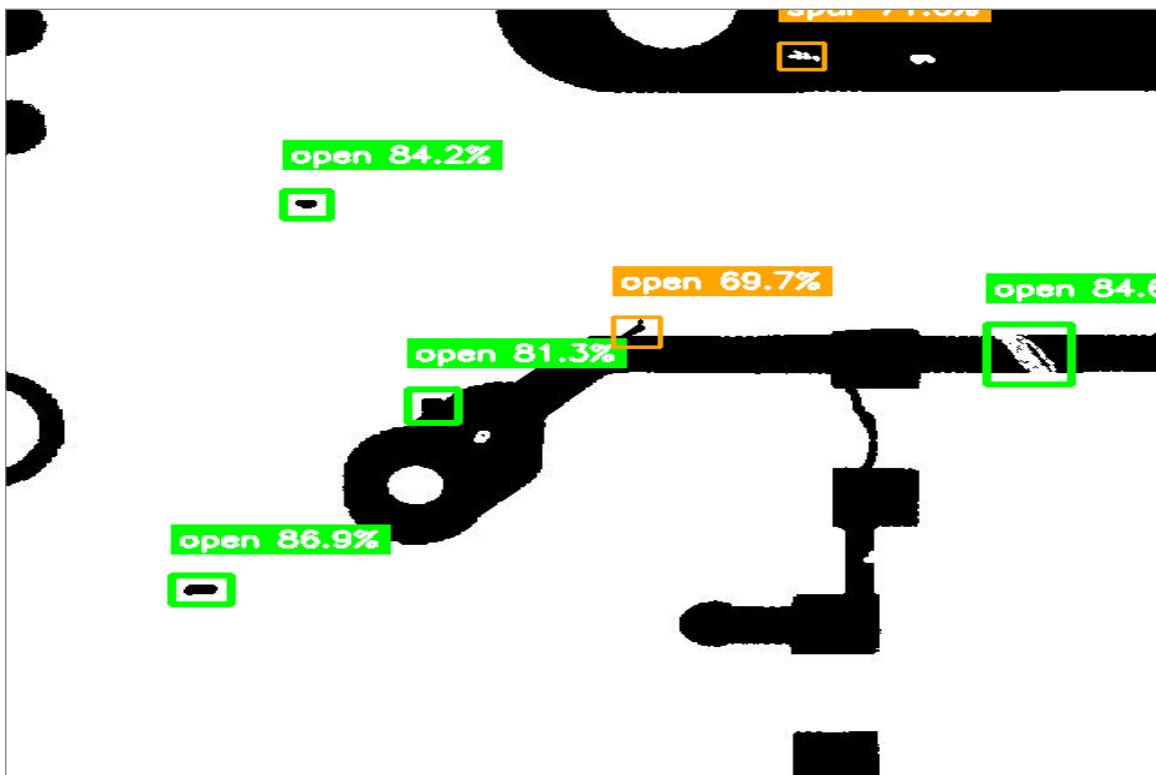
### **Spatial Distribution (size ~ confidence)**



### **Confidence Histogram**



## Annotated Results & Defect Details



ID	Type	Confidence	Position (X,Y)	Size (WxH)	Area (px <sup>2</sup> )
#1	open	86.9%	(108,483)	33x24	217
#4	open	81.3%	(237,330)	28x28	200
#6	open	84.6%	(567,287)	47x50	824
#7	open	69.7%	(350,268)	26x25	148
#8	open	84.2%	(167,162)	26x23	124
#10	spur	71.0%	(441,39)	25x22	106

## **Recommendations**

If no defects detected, lower diff threshold or min ROI area. Inspect high-confidence defects first.

## **Conclusion**

Automated inspection completed in 2.71 seconds.