Defect Analysis Report — CircuitGuard AI

Report ID:	RPT-CB9ACF8B
Generated On:	2025-11-12 13:16:36
Model:	ResNet50 (custom)
Device:	cpu

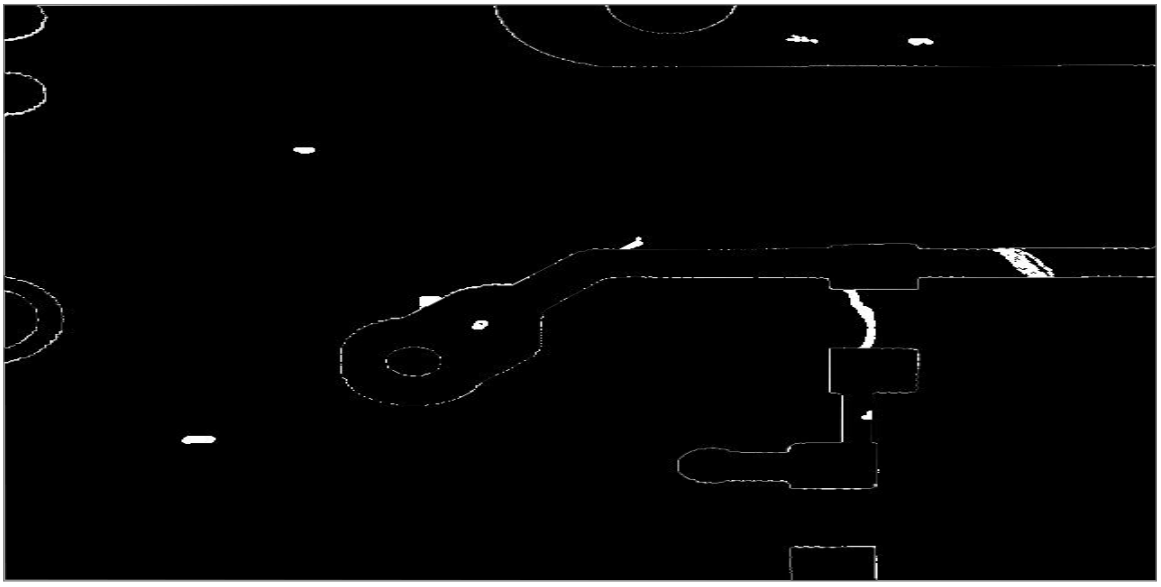
Executive Summary

Detected 32 defect(s). High:8, Medium:24, Low:0. Avg conf: 72.27%.

Metric	Value
Total Defects	32
High Confidence (>=80%)	8
Medium Confidence (60-80%)	24
Low Confidence (<60%)	0
Average Confidence	72.27%

Input & Analysis Maps

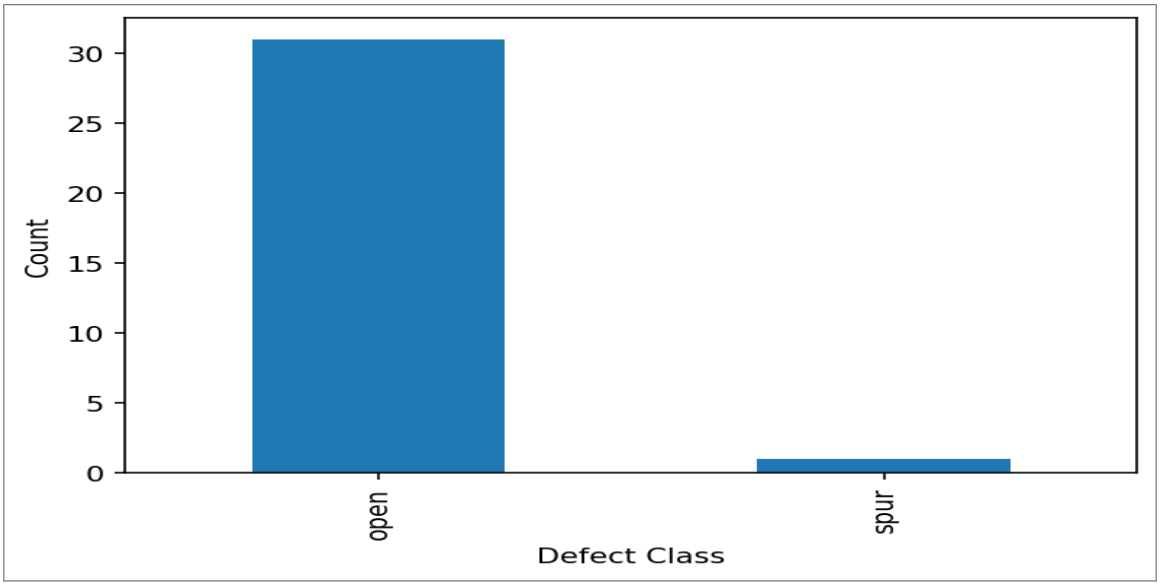
Difference Map



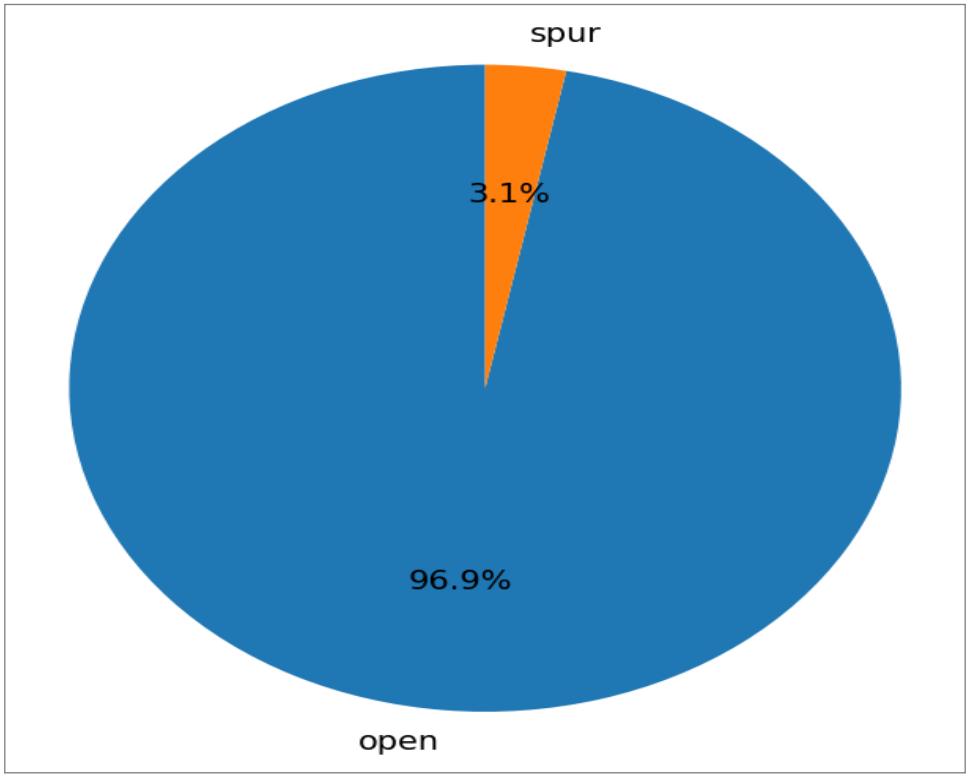
Binary Mask

Statistical Charts

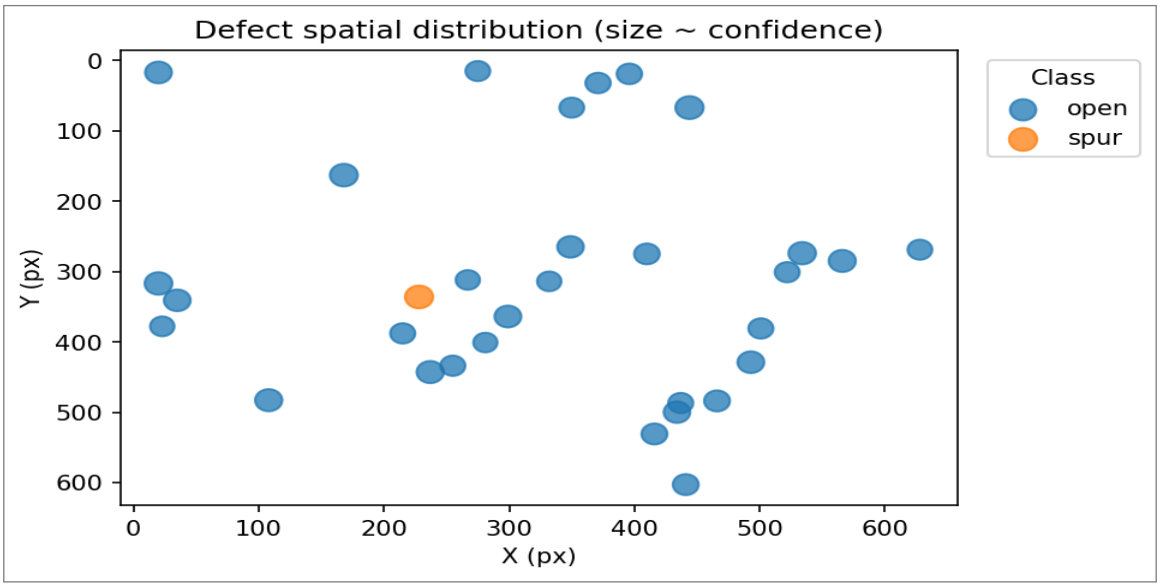
Defect Count by Class



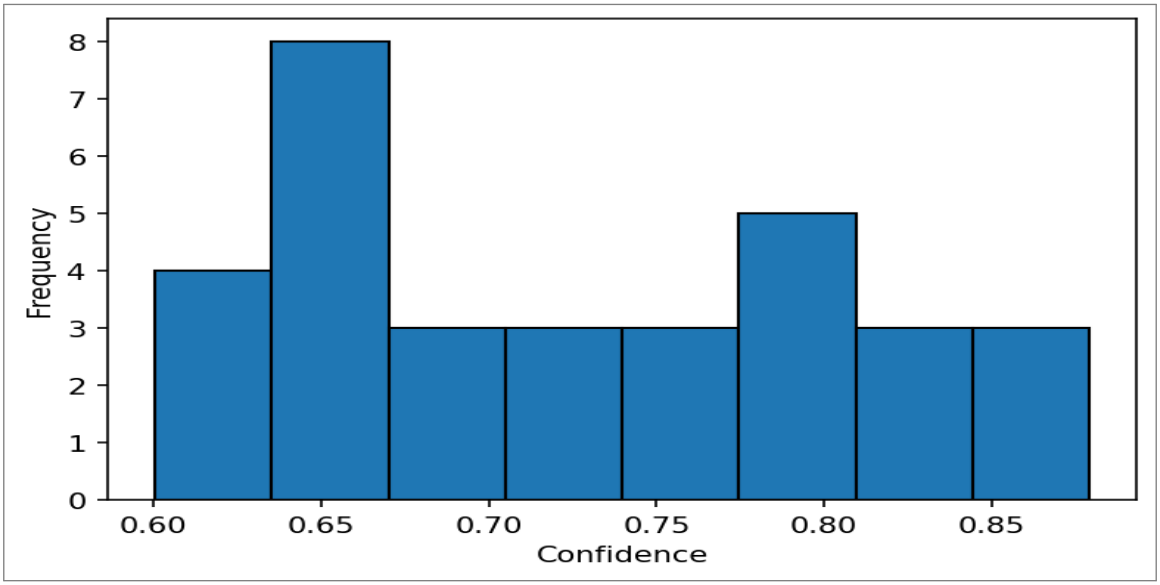
Defect Distribution (Pie)



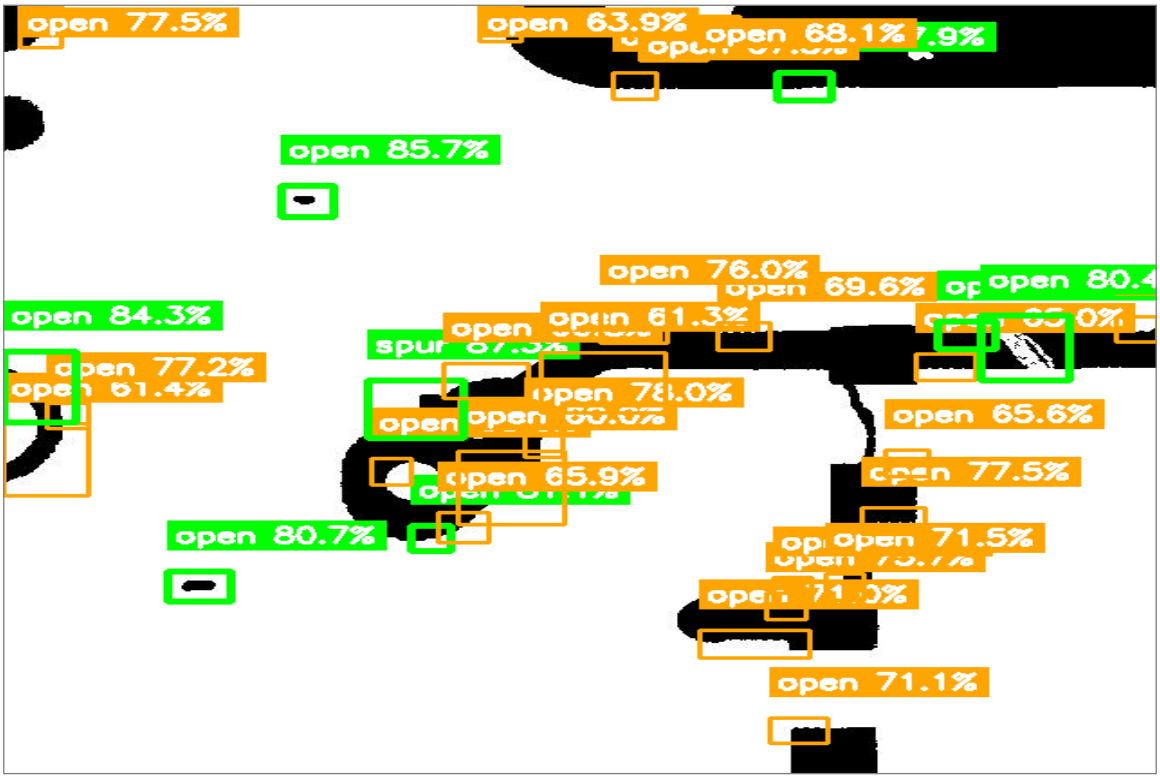
Spatial Distribution (size ~ confidence)



Confidence Histogram



Annotated Results & Defect Details



ID	Type	Confidence	Position (X,Y)	Size (W×H)	Area (px²)
#1	open	71.1%	(441,603)	32x21	152
#2	open	71.0%	(416,531)	61x23	454
#4	open	75.7%	(434,500)	22x22	81
#6	open	65.2%	(437,487)	21x22	72
#7	open	71.5%	(466,484)	21x22	72
#8	open	80.7%	(108,483)	35x25	243
#10	open	81.1%	(237,443)	22x21	72
#11	open	65.9%	(255,434)	28x25	144
#12	open	77.5%	(493,429)	35x22	189
#16	open	65.6%	(215,388)	22x22	81
#18	open	60.0%	(281,401)	59x61	615
#19	open	65.6%	(501,381)	24x22	98
#20	open	78.0%	(299,364)	21x24	88
#21	open	61.4%	(23,378)	47x60	888
#23	open	77.2%	(35,341)	23x21	80
#24	spur	87.3%	(228,336)	53x48	519
#26	open	60.8%	(267,312)	47x29	310
#28	open	65.0%	(522,301)	33x22	178
#30	open	61.3%	(332,314)	69x50	585
#31	open	84.3%	(20,317)	40x59	905
#33	open	69.6%	(410,275)	29x23	154

#34	open	82.8%	(534,274)	32x23	182
#35	open	63.5%	(628,269)	23x21	88
#36	open	80.4%	(566,285)	49x54	1030
#37	open	76.0%	(349,265)	37x31	352
#38	open	85.7%	(168,163)	29x26	192
#41	open	87.9%	(444,67)	30x23	160
#42	open	64.0%	(350,67)	24x22	99
#48	open	67.5%	(371,32)	37x27	261
#49	open	68.1%	(396,19)	23x21	80
#51	open	63.9%	(275,15)	23x30	172
#52	open	77.5%	(20,17)	23x35	248

Recommendations

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

Conclusion

Automated inspection completed in 3.21 seconds.