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Pixel Size's Effect Upon Photo-Resolution

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Pixel Size’s Effect On Photo-Resolution

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This is the full resolution chart. The 9 lines are located in the red square.

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Research question:
Pixel count vs. pixel size;
Which of these is more important in determining the resolution of an image?

A standardized resolution chart was photographed by 4 Cameras with 4 different sized image sensors.

Each camera was given a resolution score based on the most narrow point where all 9 lines from the chart are distinguishable.

This is the full resolution chart. The 9 lines are located in the red square.

Graphs were generated to show the relation between pixel count/pixel size and the resolution scores (RTC Score).

The graphs show a positive correlation between pixel size and resolution but show no correlation between pixel count and resolution.

Conclusion:
When purchasing your camera, consider the actual size of each pixel over the total number of pixels.

References:
• Crisp, Simon. (2013) Camera sensor size: Why does it matter and exactly how big are they?
• Westin, Stephen. ISO Resolution Test Chart 12233. Ithaca, NY 14850: Cornell University

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