JPEG Encoding
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Encoding Process:
- Color Transform
- Downsampling
- 8x8 blocks
- DCT
- Quantization
- Entropy Encoding

Settings:
- Lossy vs Lossless
- Variable sizing/accuracy

Weaknesses/Strengths:
- A lot of detail lost in high frequency areas
- These areas don’t matter to the human eye.
- JPEG should be used in photographs where the aesthetic is what is important.
\[ G_{u,v} = \frac{1}{4} \alpha(u) \alpha(v) \sum_{x=0}^{7} \sum_{y=0}^{7} g_{x,y} \cos \left[ \frac{(2x + 1)u \pi}{16} \right] \cos \left[ \frac{(2y + 1)v \pi}{16} \right] \]