

# Video Compression Homework #1 - Color Transform Report

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Name: 謝振杰

Student ID: 313551085

## Method

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$$\begin{aligned}Y &= 0.299 * R + 0.587 * G + 0.114 * B \\U &= -0.169 R - 0.331 G + 0.5 B + 128 \\V &= 0.5 R - 0.419 G - 0.081 B + 128 \\C_b &= -0.168736 R - 0.331264 G + 0.5 B + 128 \\C_r &= 0.5 R - 0.418688 G - 0.081312 B + 128\end{aligned}$$

## Result

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R



**G**



**B**



**Y**



**U**



**V**



**Cb**



Cr

