R is the part of Red in the color to translate.
G is the part of Green in the color to translate.
B is the part of Blue in the color to translate.
M_{axR} is the possible maximum of R (generaly 255 or 100%).
M_{axG} is the possible maximum of G (generaly 255 or 100%).
M_{axB} is the possible maximum of B (generaly 255 or 100%).

R', G', B', C_{max}, C_{min}, Δ, H', S' and L' are internal variables that mustn't be displayed.

H is the Hue of the translated color.
S is the Saturation of the translated color.
L is the Luminosity of the translated color.
M_{axH} is the possible maximum of H (generaly 360°).
M_{axS} is the possible maximum of S (generaly 100%).
M_{axL} is the possible maximum of L (generaly 100%).

$$R' = \frac{R}{M_{axR}}$$

$$G' = \frac{G}{M_{axG}}$$

$$B' = \frac{B}{M_{axB}}$$

$$C_{max} = \max(R', G', B')$$

$$C_{min} = \min(R', G', B')$$

$$\Delta = C_{min} - C_{max}$$

$$H' = \begin{cases} 0° & \Delta = 0 \\ 60° \times \frac{G'-B'}{\Delta} \mod 6 & C_{max} = R' \\ 60° \times \frac{B'-R'}{\Delta} + 2 & C_{max} = G' \\ 60° \times \frac{R'-G'}{\Delta} + 4 & C_{max} = B' \end{cases}$$

$$S' = \begin{cases} 0 & \Delta = 0 \\ \frac{\Delta}{1-|2 \times L'-1|} & \Delta <> 0 \end{cases}$$

$$L' = \frac{C_{max}+C_{min}}{2}$$

$$H = \frac{H'}{360} \times M_{axH}$$

$$S = S' \times M_{axS}$$

$$L = L' \times M_{axL}$$