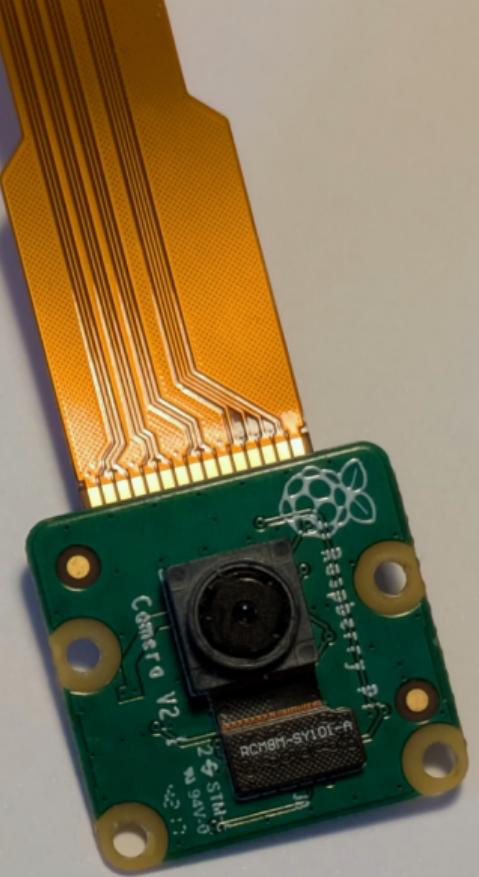


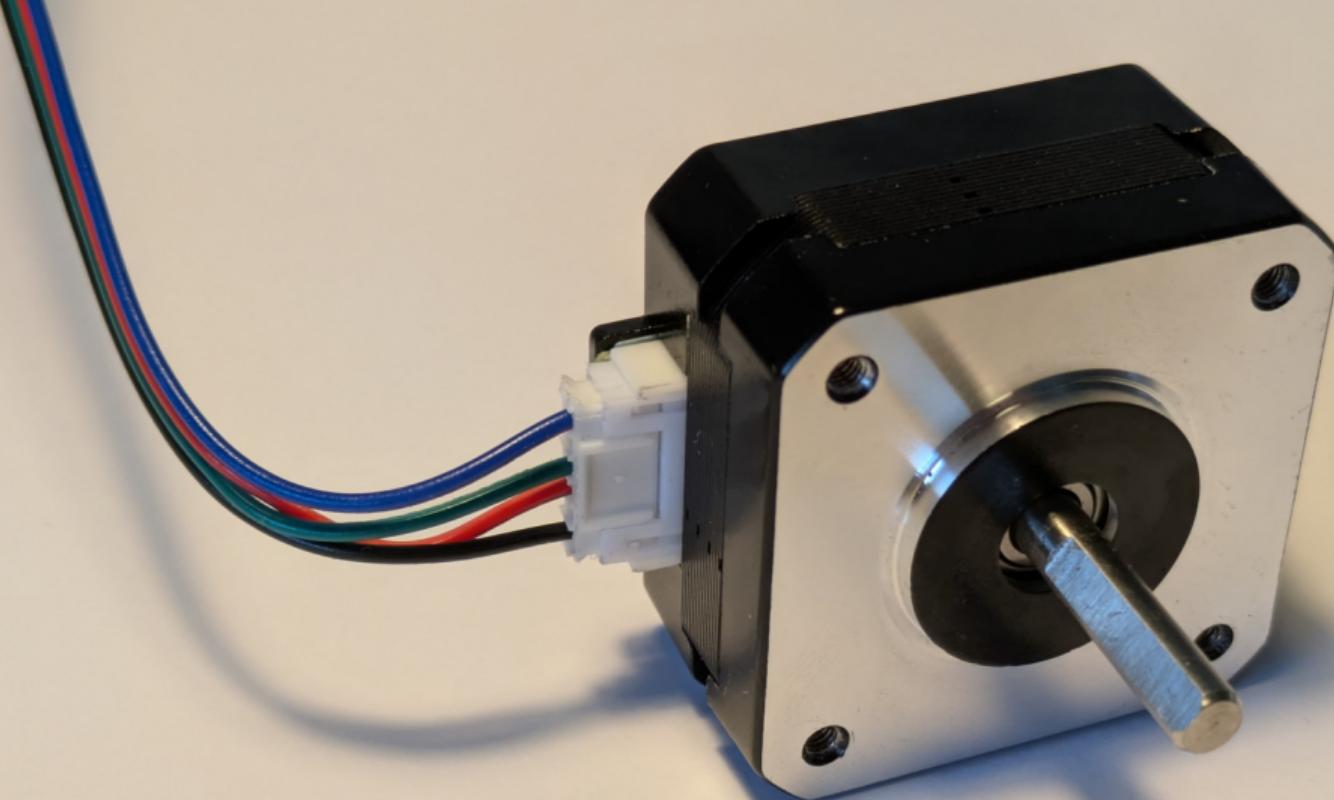
# Modular Tracker following a ping pong ball

Leon Oleschko  
18.03.2025

# Demo



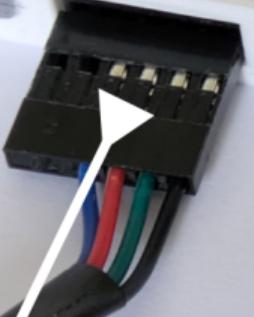




*Leon Oleschko 2025*  
24HP 3U 180mm



Power



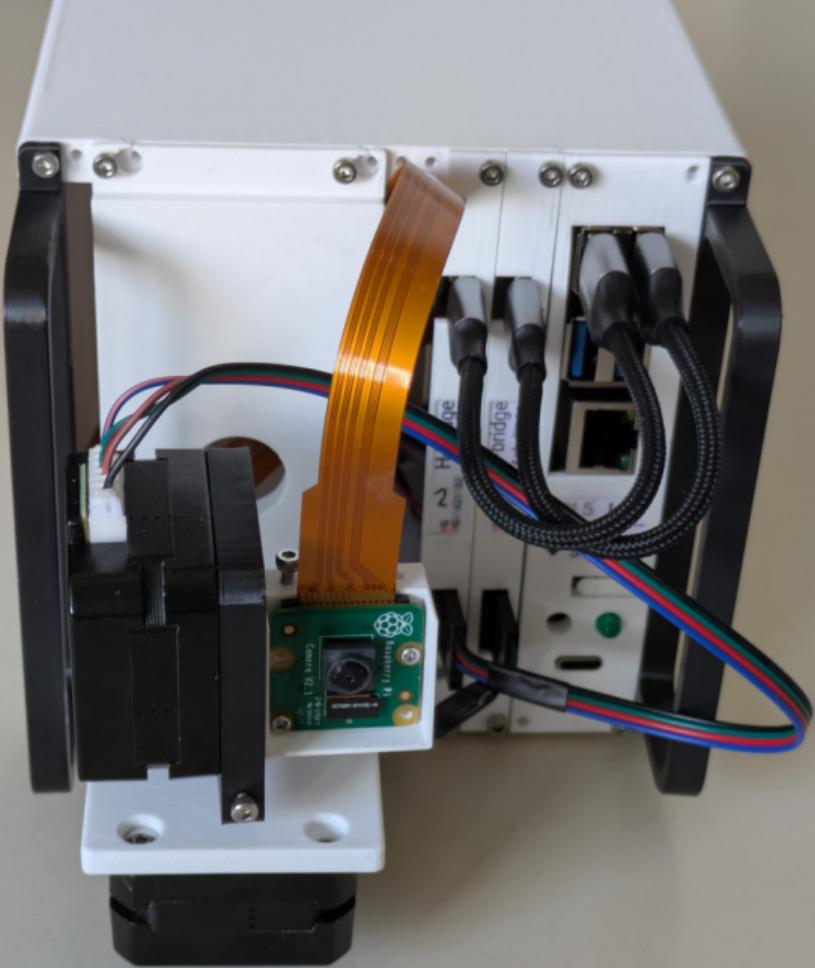
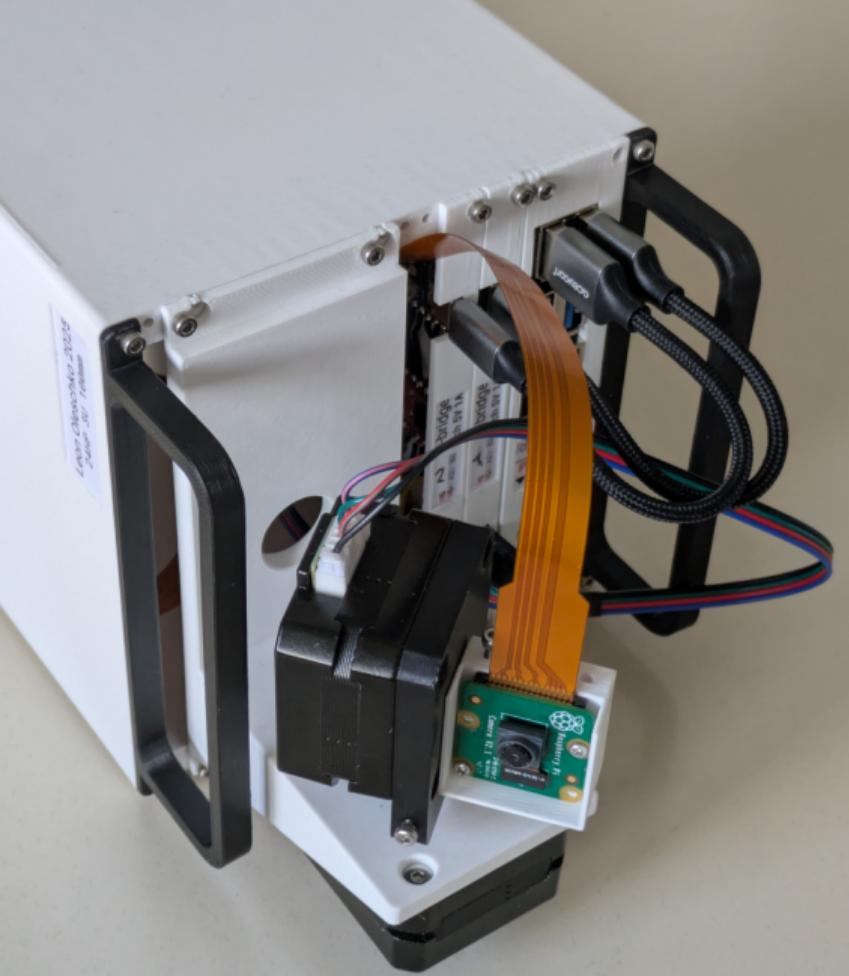
to Motor

VG  
VGATIAZB1B2  
H-bridge  
4ch 5V 1A



to Computer







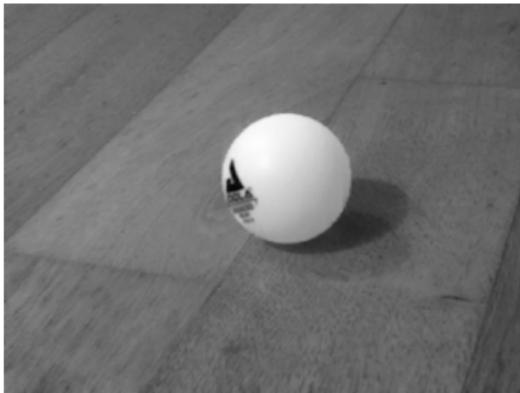


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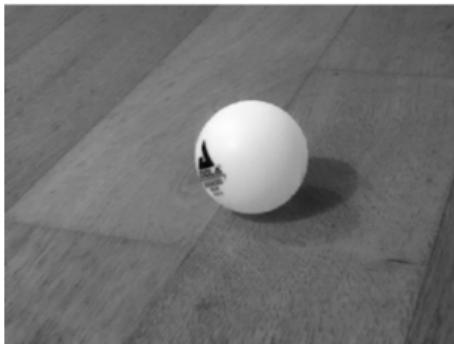
Red

Green

Blue



Red



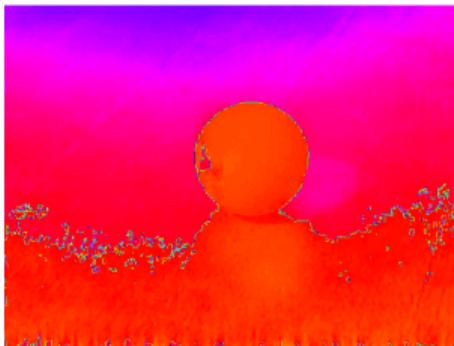
Green



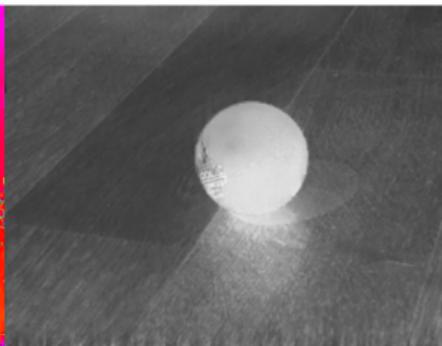
Blue



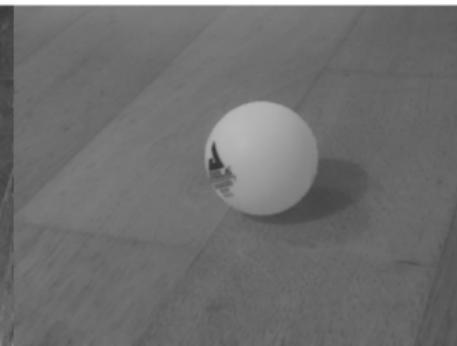
Hue



Saturation



Value



$$- \left( \begin{array}{c} \text{Hue} \\ \text{Saturation} \\ \text{Value} \end{array} - \begin{array}{c} \text{Hue} \\ \text{Saturation} \\ \text{Value} \end{array} \right)^2$$

$$= \begin{array}{c} \text{Hue} \\ \text{Saturation} \\ \text{Value} \end{array}$$

$$- \left| \frac{\text{Hue} \quad \text{Saturation} \quad \text{Value}}{(\sigma_H, \sigma_S, \sigma_V)} \right|^2 = \text{Image with a red X over the ball}$$

