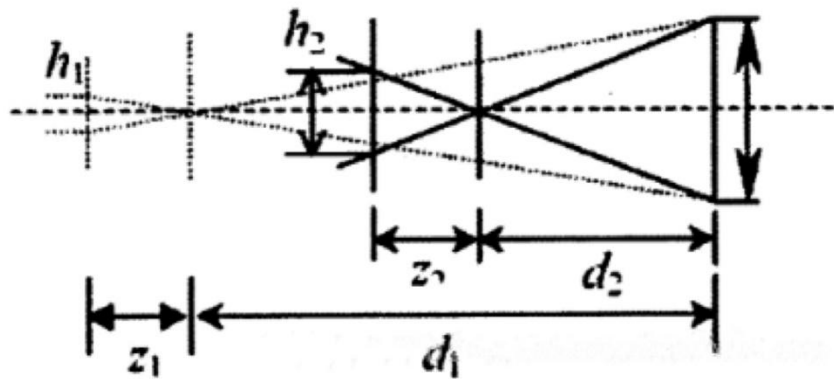


I think the better algorithm is the multi-frame ranging method.

Multi-frame ranging is to obtain multiple images by shooting a moving object with a camera, and then find the corresponding part to calculate the relative displacement of the pixel, and then use the corresponding algorithm to calculate the distance.



According to the principle of lens imaging:

$$\frac{1}{z_1} + \frac{1}{d_1} = \frac{1}{f}$$

$$\frac{1}{z_2} + \frac{1}{d_2} = \frac{1}{f}$$

$$\frac{h_1}{z_1} = \frac{H}{d_1}$$

$$\frac{h_2}{z_2} = \frac{H}{d_2}$$

Then there are:

$$d_1 \cdot h_1 = d_2 \cdot h_2$$