

$$\text{Supplement} + \text{max length} \leq \text{Fov}$$

$$\text{frame rate} \geq \frac{\text{speed}}{\text{supplement}}$$

$$\frac{\text{Fov}}{\text{WD}} = \frac{\text{sensor width}}{\text{Focal length}} = \tan \alpha$$

$$\text{resolution (mm/px)} = \frac{\text{length}}{n \text{ pixel}} = \frac{\text{speed}}{\text{frequency}} = \frac{1}{\text{resolution}}$$

$$\text{Fov}_x = \text{resolution} \cdot n^\circ \text{ pixel}$$

$$\text{Sensor width} = n^\circ \text{ pixel} \cdot \text{pixel size}$$

$$\text{Shutter time} = \frac{\text{blur} \cdot \text{resolution}}{\text{speed}} = \frac{\text{blur}}{\text{frequency}}$$

$$\text{bit rate} = n^\circ \text{ pixel} \cdot \text{frequency}$$

$$\frac{\max_x - x(y)}{n^\circ \text{ pixel} - x(y)} \cdot n^\circ \text{ pixel} - y(x) = \text{length} > \max_y(x)$$

$$\text{Smallest size defect} = \text{correct processing} \cdot \text{resolution}$$