

$$\text{battery capacity} \geq \text{total power} \times \text{endurance}, \quad (0.1)$$

$$\text{total power} = \text{actuation power} + \text{extra power},$$

$$\text{weight} = \text{total mass} \times \text{gravity},$$

$$\text{actuation lift} \geq \text{weight},$$

$$\text{labor cost} = \text{cost per replacement} \times \text{battery maintenance},$$

$$\text{total cost} = \text{battery cost} + \text{actuation cost} + \text{labor cost},$$

$$\text{total mass} = \text{battery mass} + \text{actuation mass} + \text{payload}. \quad (0.2)$$