

Maximum energy zone

$$E_{\text{robot}} < E_{\text{safe}} + f(d_{\text{max}}) = E_{\text{max}}$$

Distance energy zone

$$E_{\text{robot}} < E_{\text{safe}} + f(d)$$

Safe zone

$$E_{\text{robot}} < E_{\text{safe}}$$

d_{max}

d_{safe}

