Suppose we are given three vectors: $a = (a_0, a_1, a_2)$, $b = (b_0, b_1, b_2)$ and $c = (c_0, c_1, c_2)$. Suppose that we need to find minimal distance between line L through a and b and vector c.

In general, point on line L will have the form

$$(a_0, a_1, a_2) + t(b_0 - a_0, b_1 - a_1, b_2 - a_2), \quad t \in \mathbb{R}$$

and the square distance between point on L and w will be

$$\left|(a_0 - c_0, a_1 - c_1, a_2 - c_2) + t(b_0 - a_0, b_1 - a_1, b_2 - a_2)\right|^2 =$$
$$\left|(a_0 - c_0, a_1 - c_1, a_2 - c_2)\right|^2 + 2t\left((a_0 - c_0)(b_0 - a_0) + (a_1 - c_1)(b_1 - a_1) + (a_2 - c_2)(b_2 - a_2)\right) + t^2 \left|(b_0 - a_0, b\right.$$

so one simply need to minimize this square equation.

Note that for square equation $ax^2 + bx + c, a > 0$ minimum is attained at $x = -b/2a$