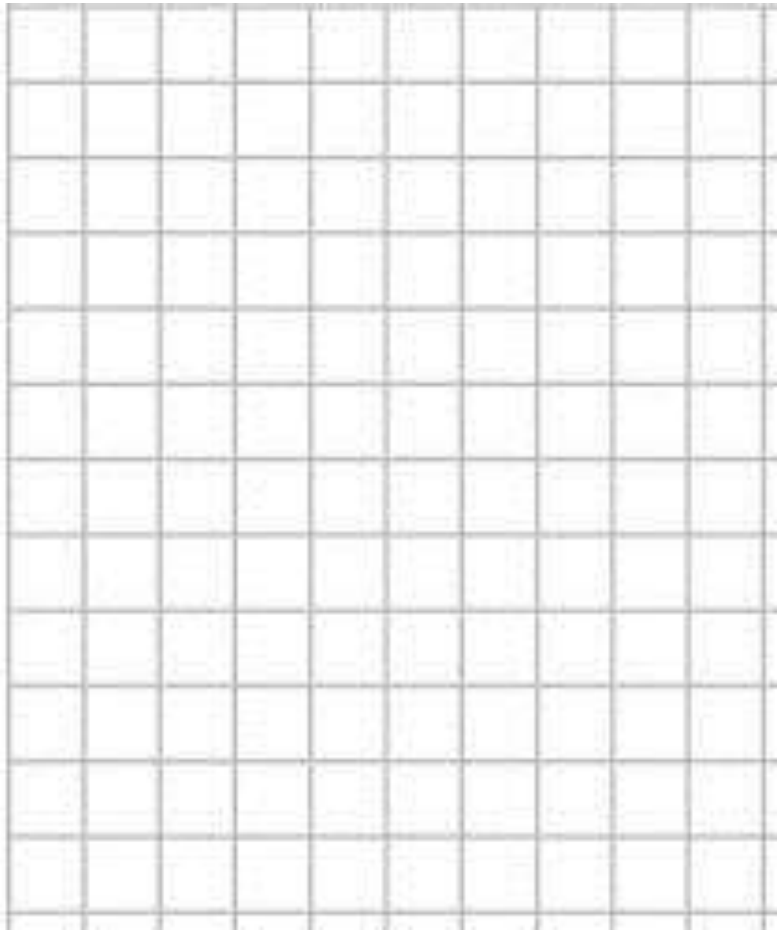
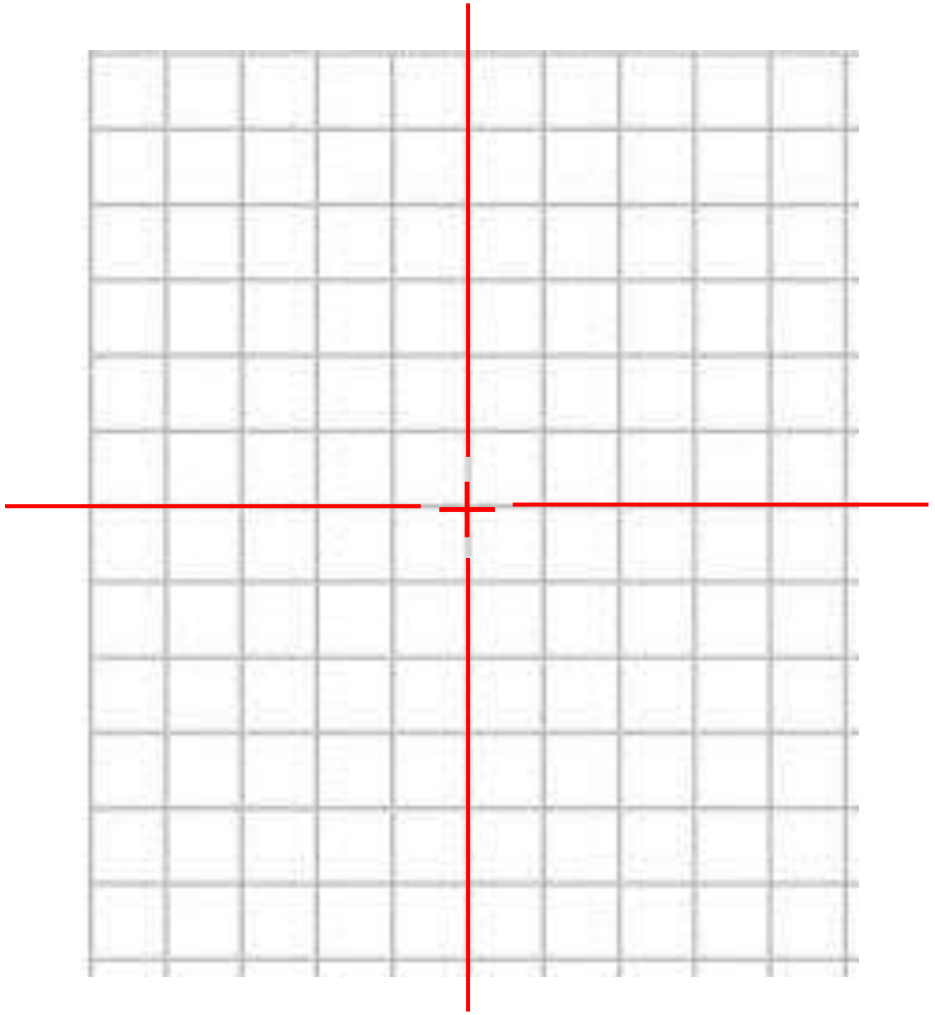
張拉結構

餘料 實作版

作品尺寸限制 100 x 100 x H120 mm

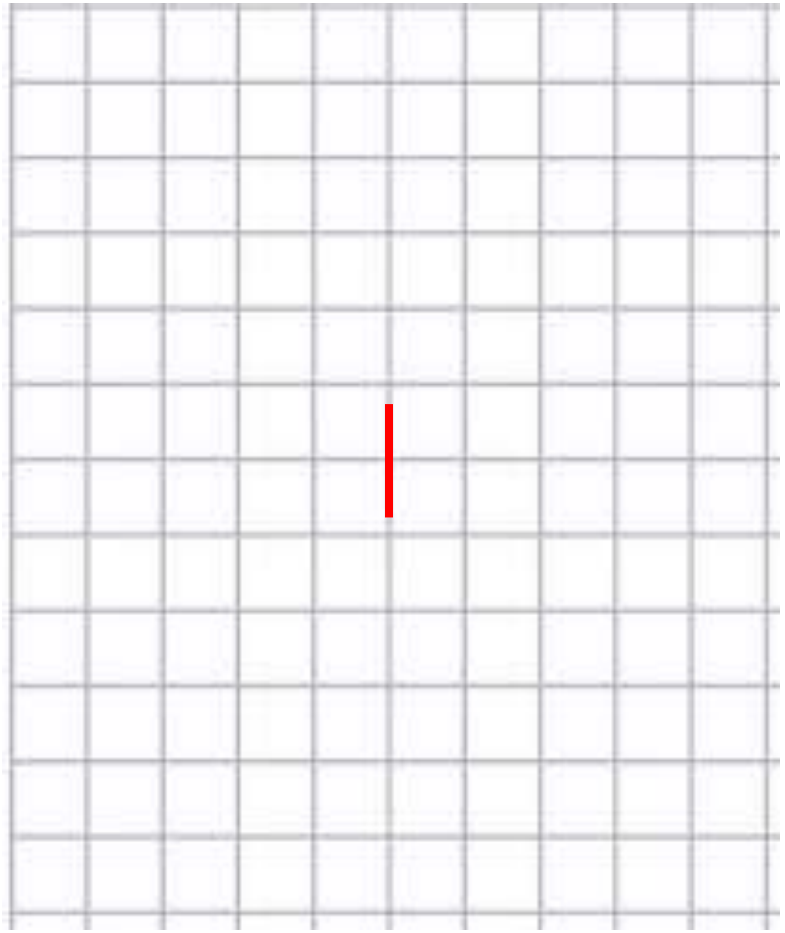


從 中心點 + 開始



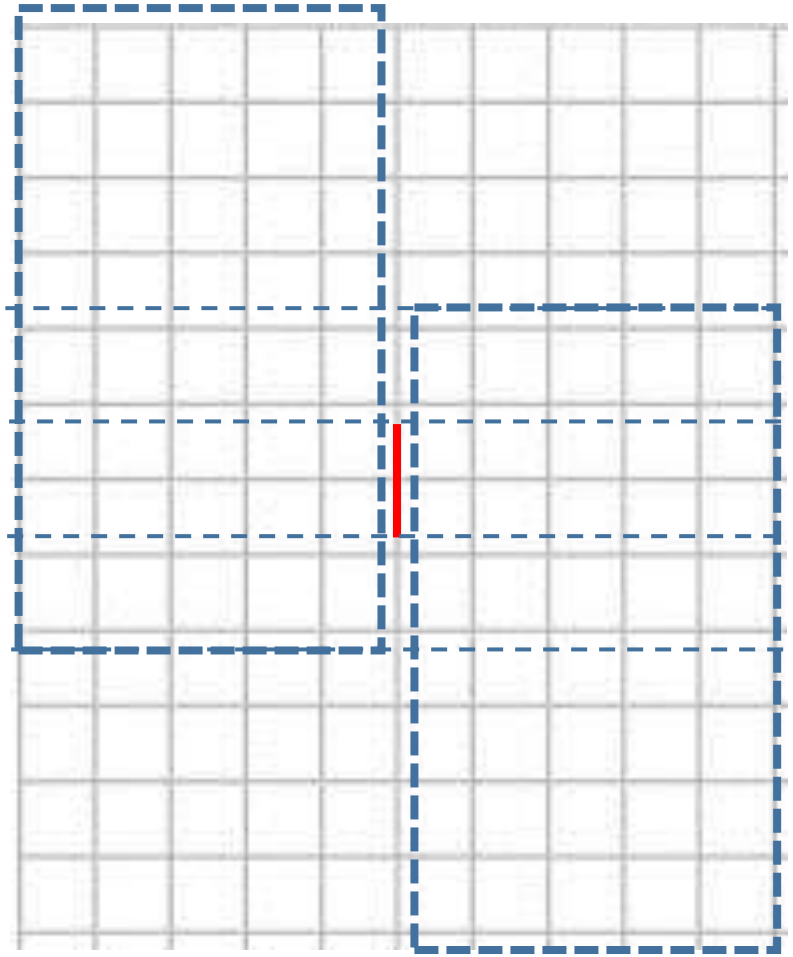
確定 水平臂垂直距離

例：15mm



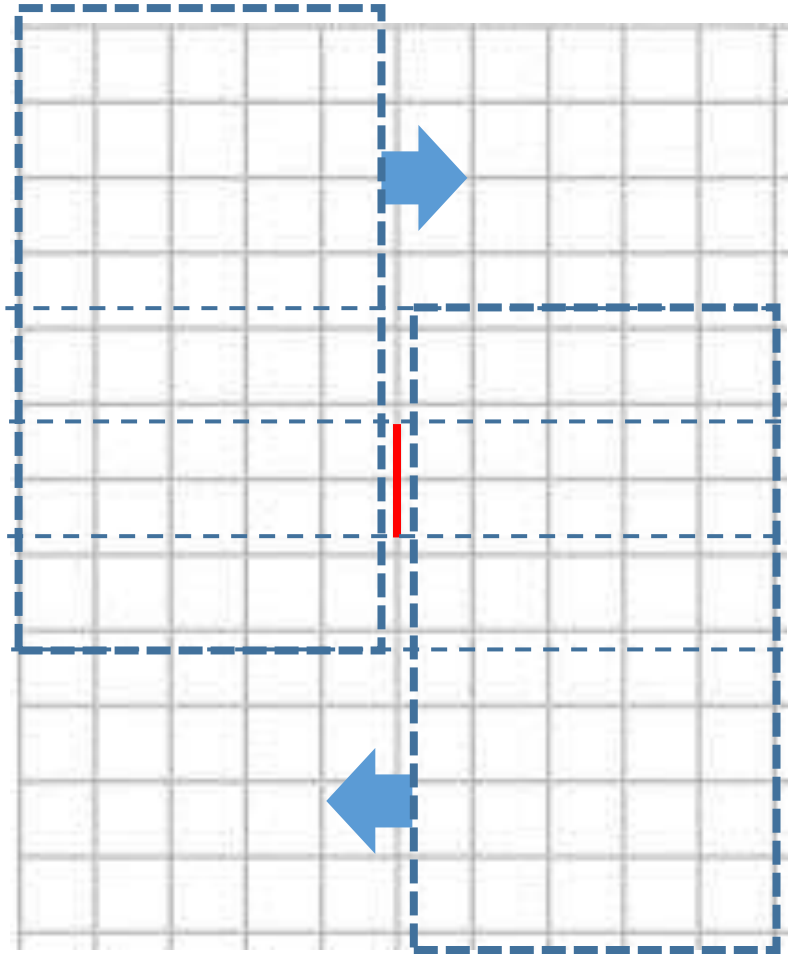
確定 水平臂寬度　例：15mm

確定 懸臂板尺寸限制 例：48 x 85

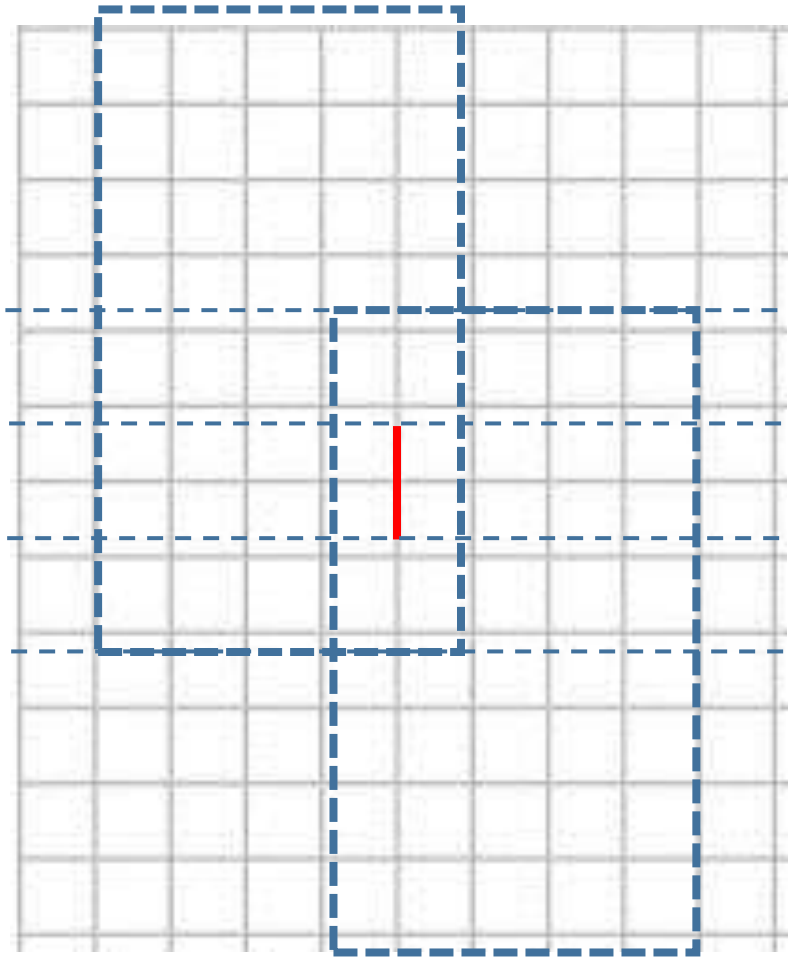


兩片懸臂板
要「重疊」？
「相切」？

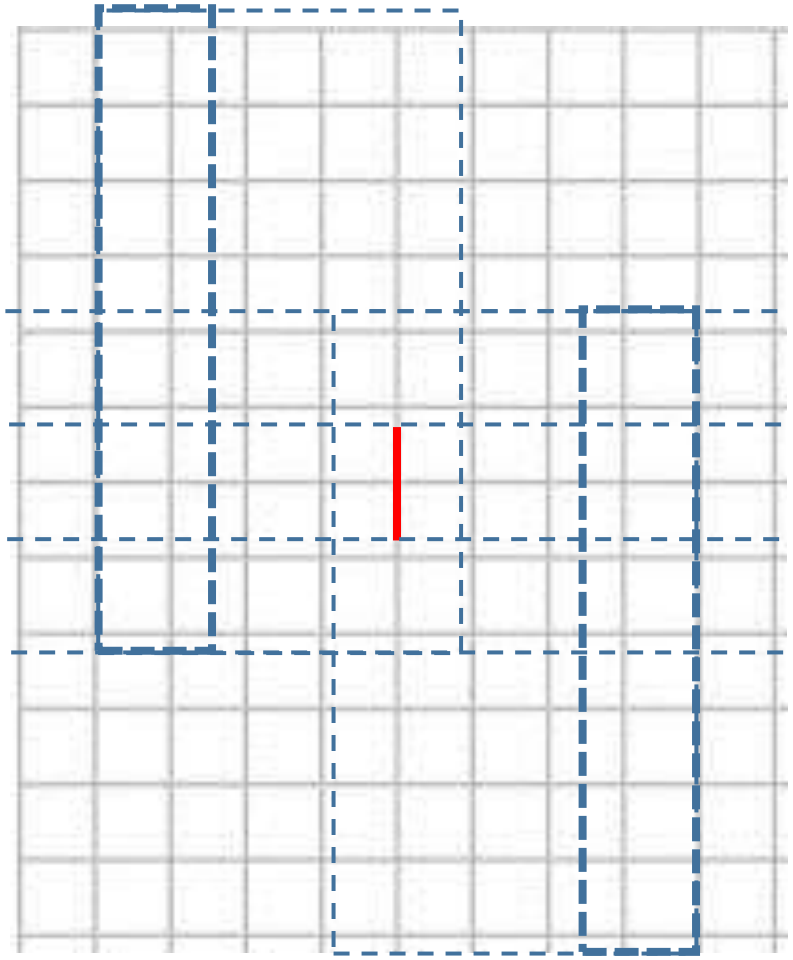
懸臂板...**平移**



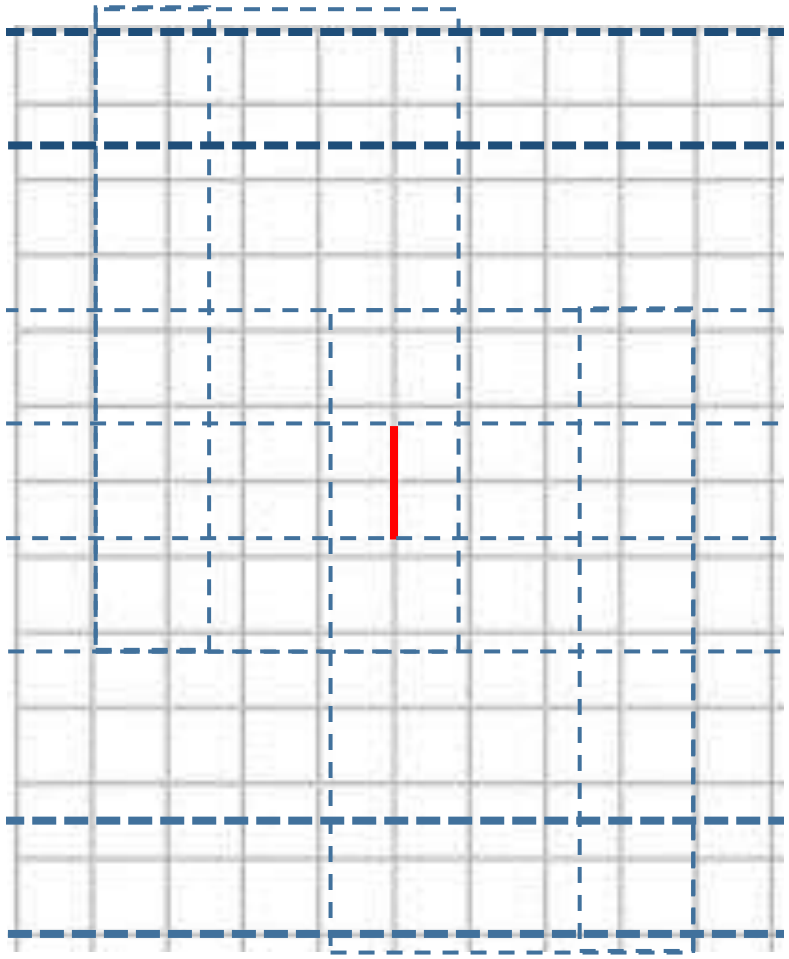
懸臂板「重疊」...平移完成！



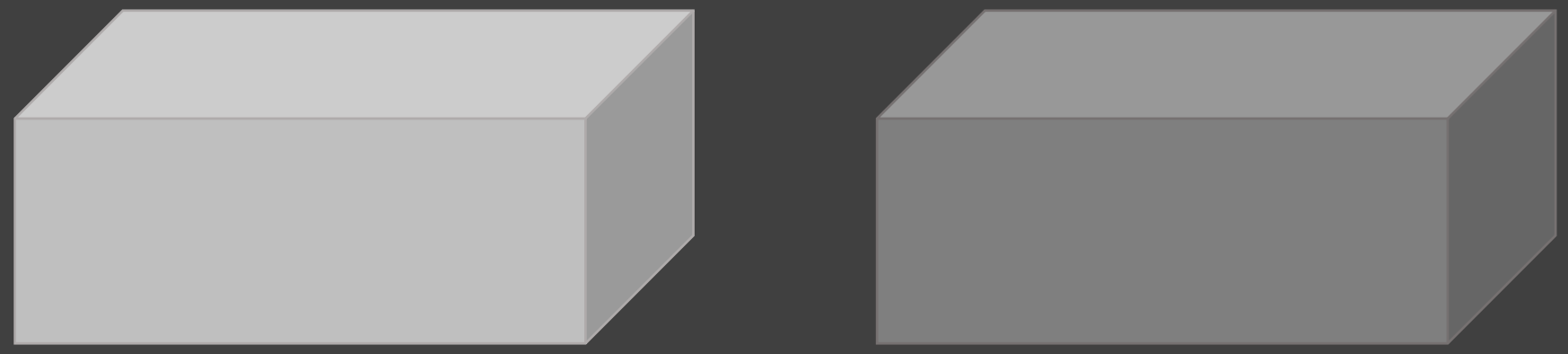
確定 垂直臂 寬度 例：15mm



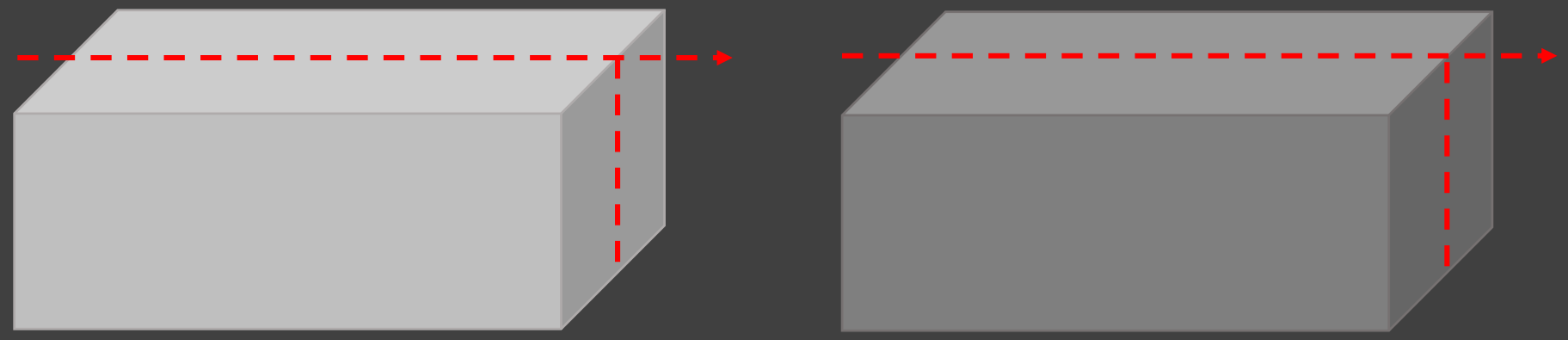
確定上下板的厚度　例：15mm



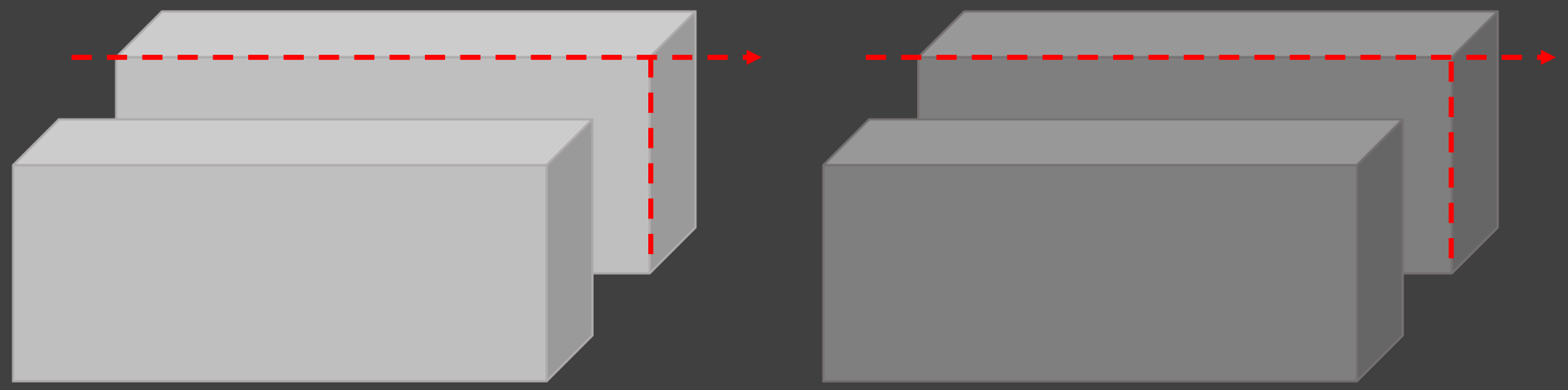
角料 上下板 x 2



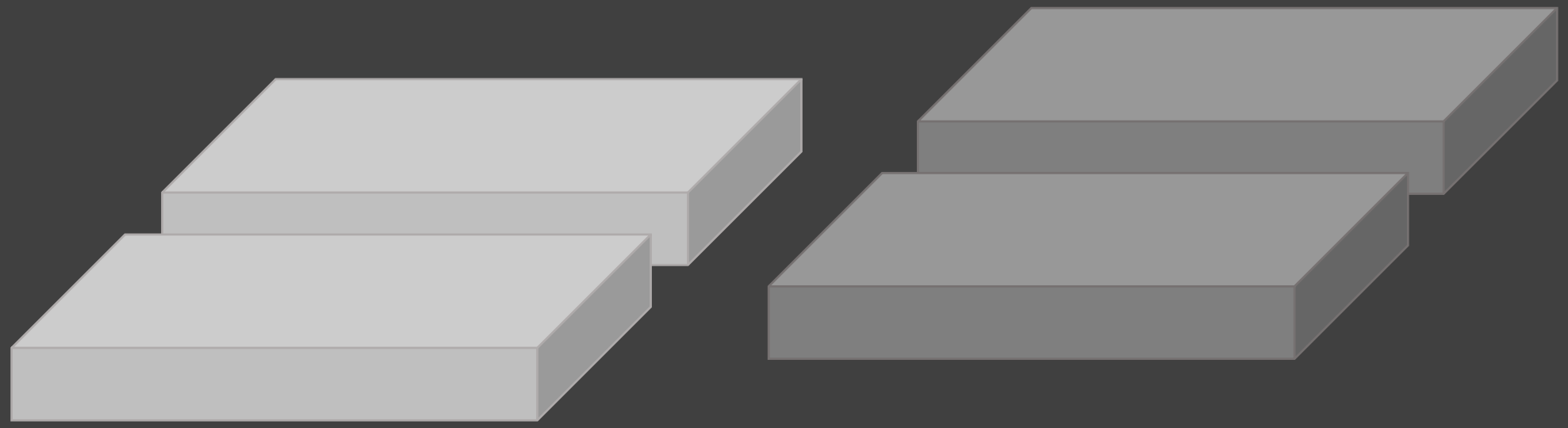
帶鋸機 剖上下板



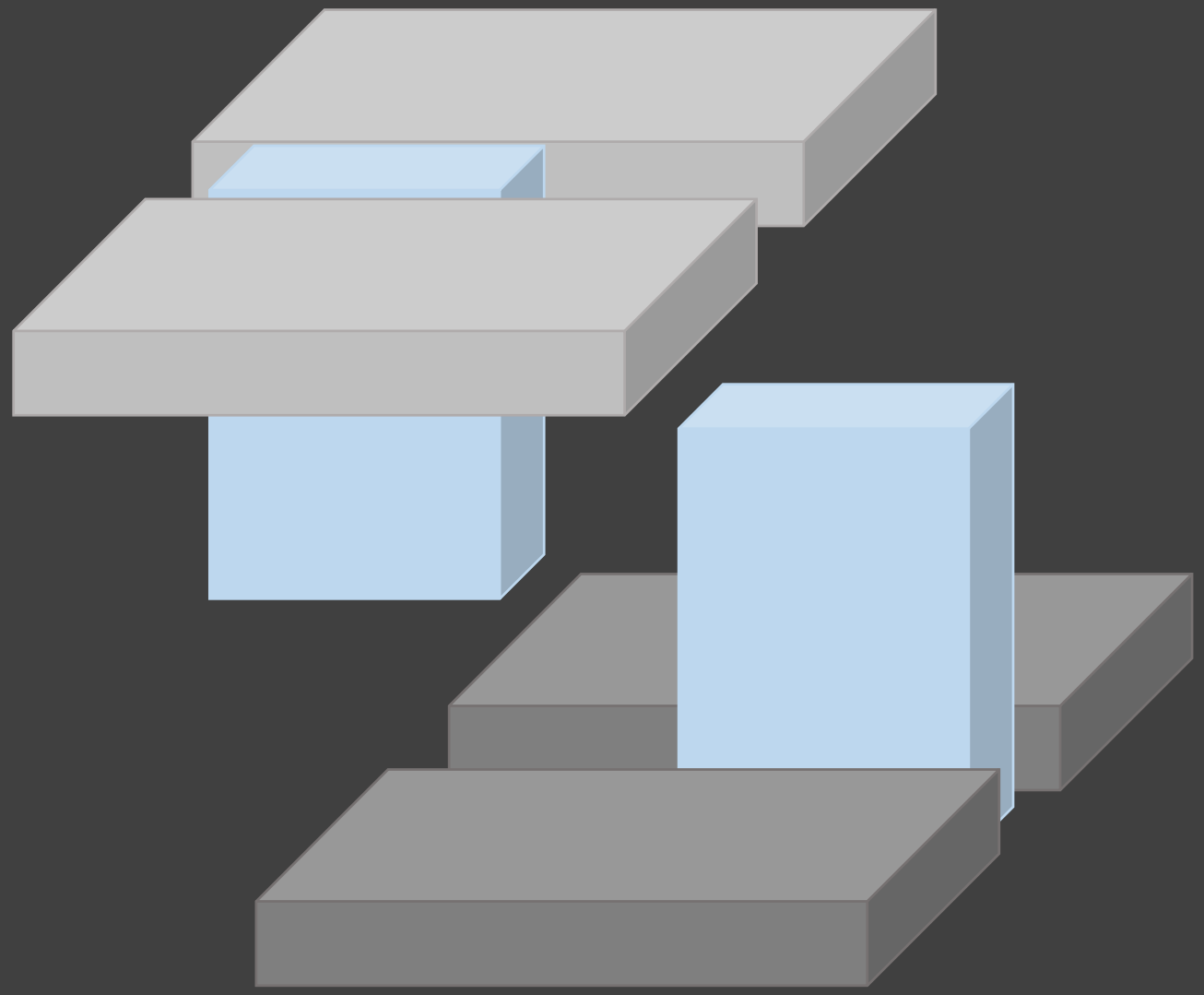
帶鋸機 剖上下板 x 4



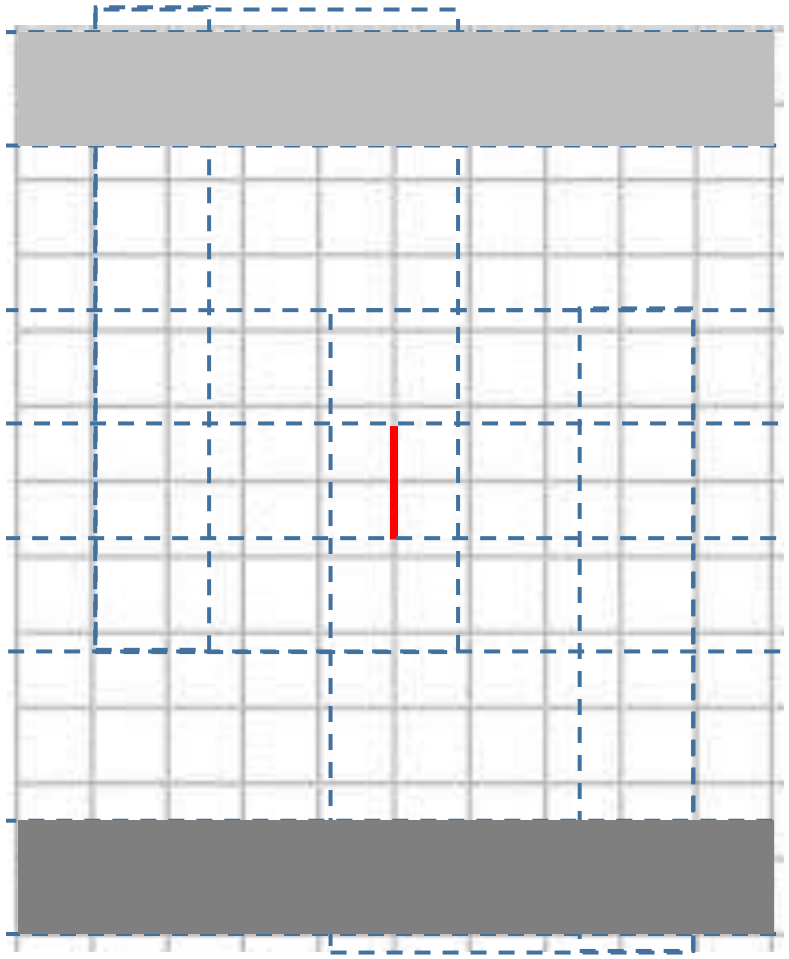
平放 併排 上下板



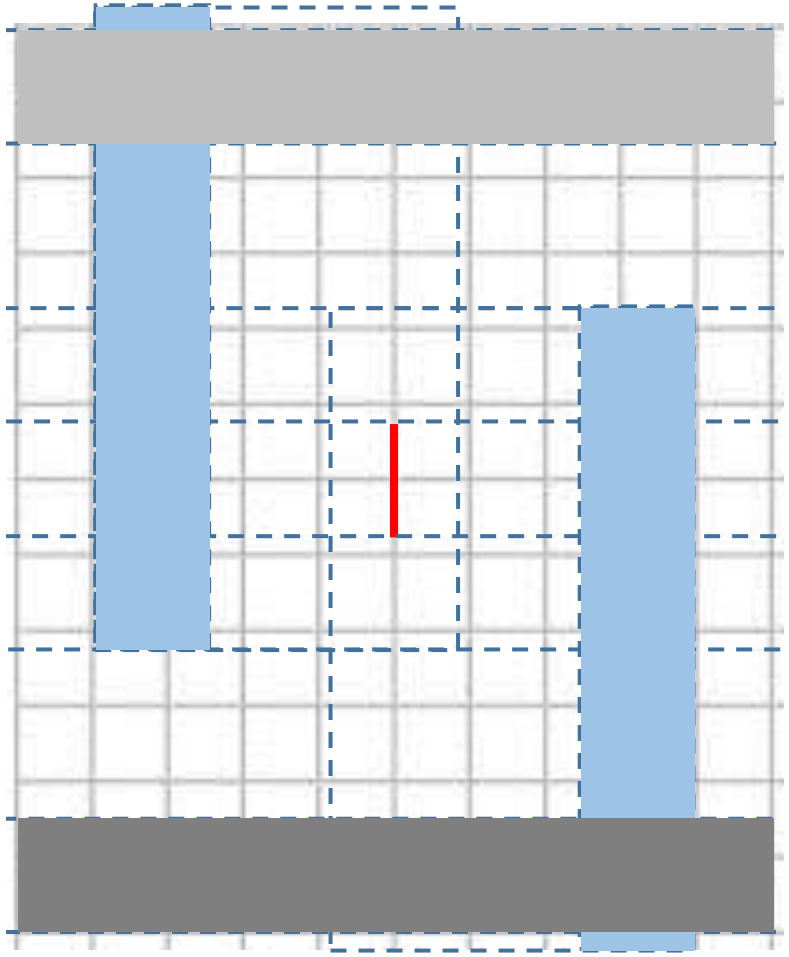
上下板 相對位置（試組合）

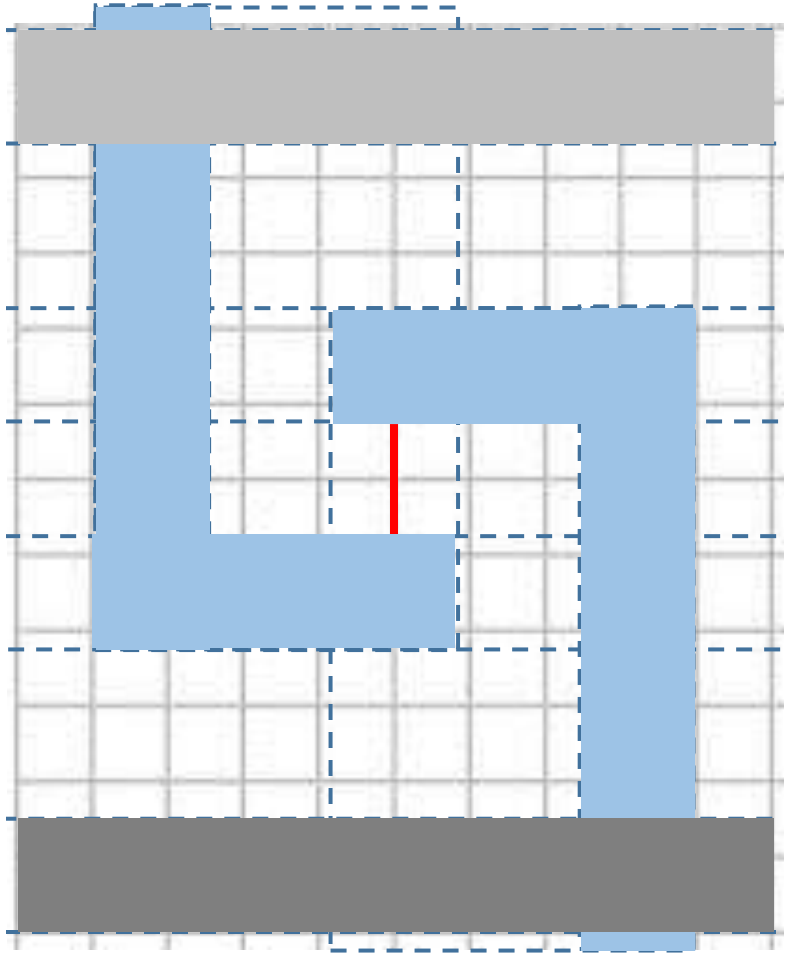


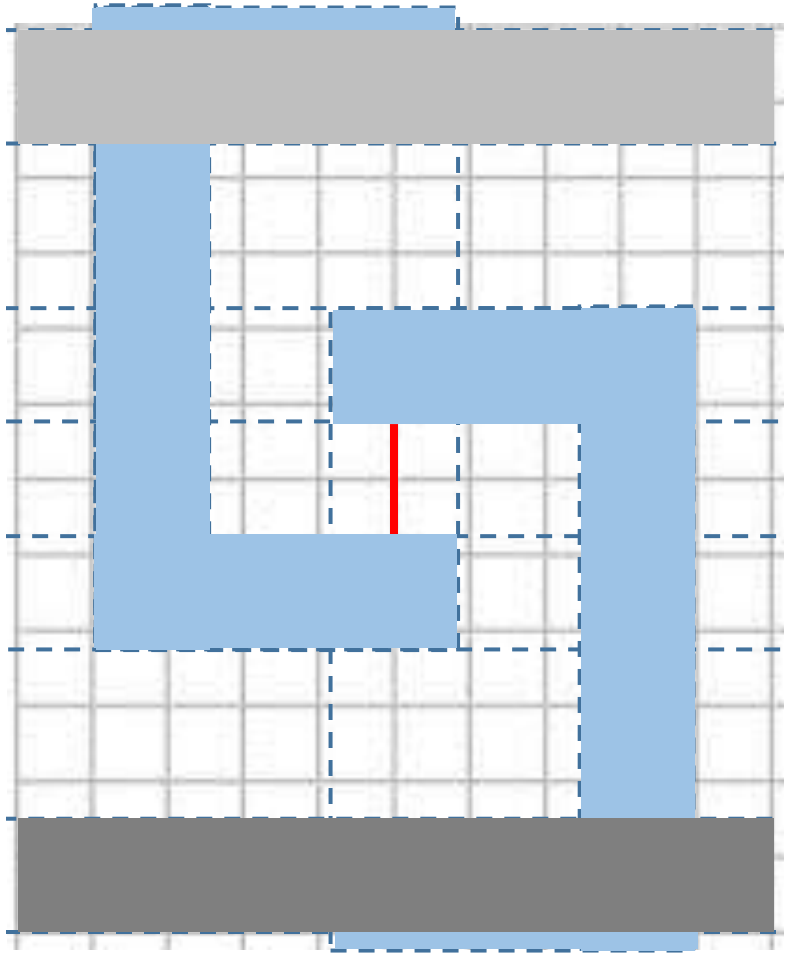
以 **色塊** 表現外型



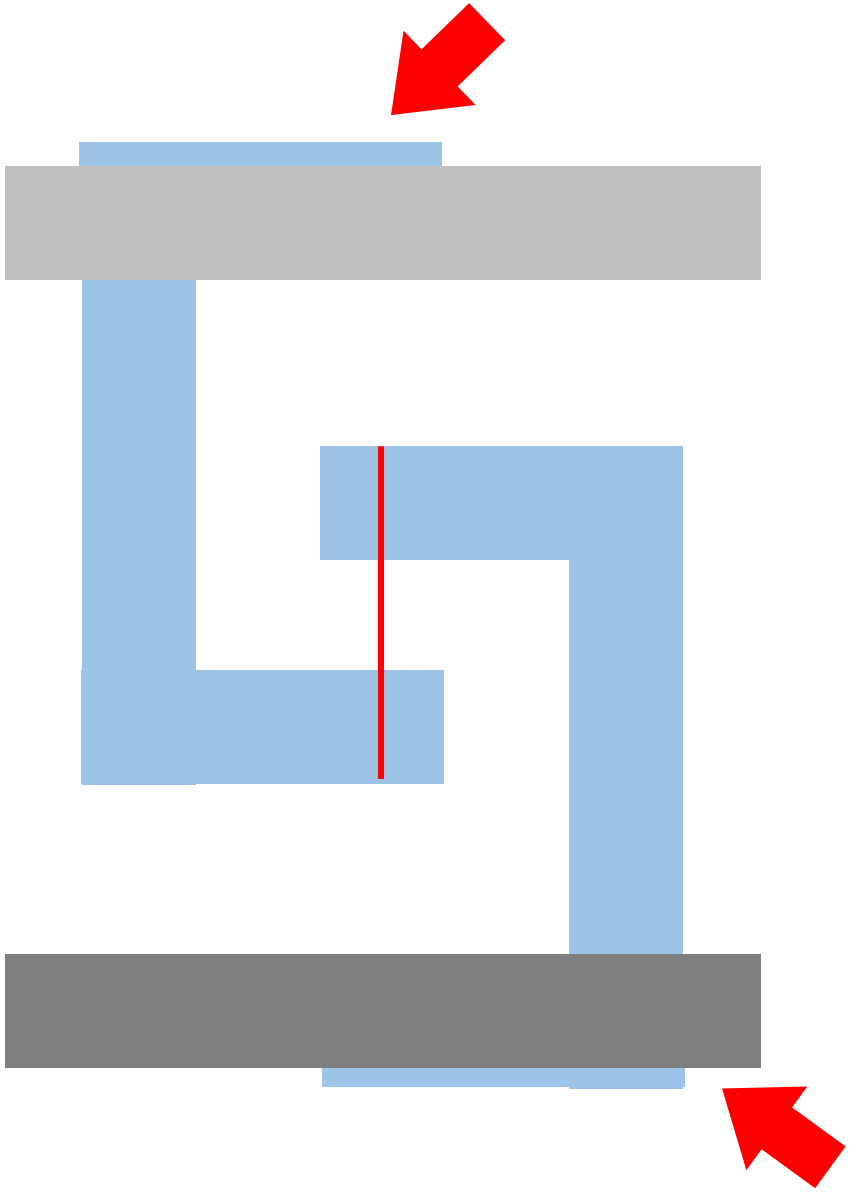
Q. 上下板「厚度」要一致嗎？





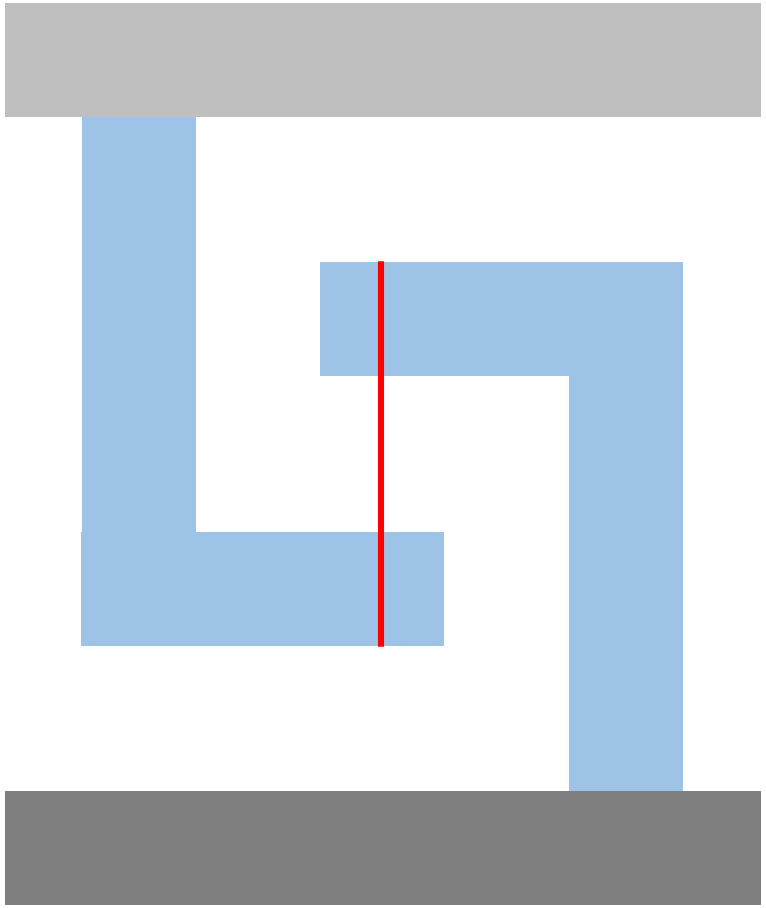


怎麼辦？

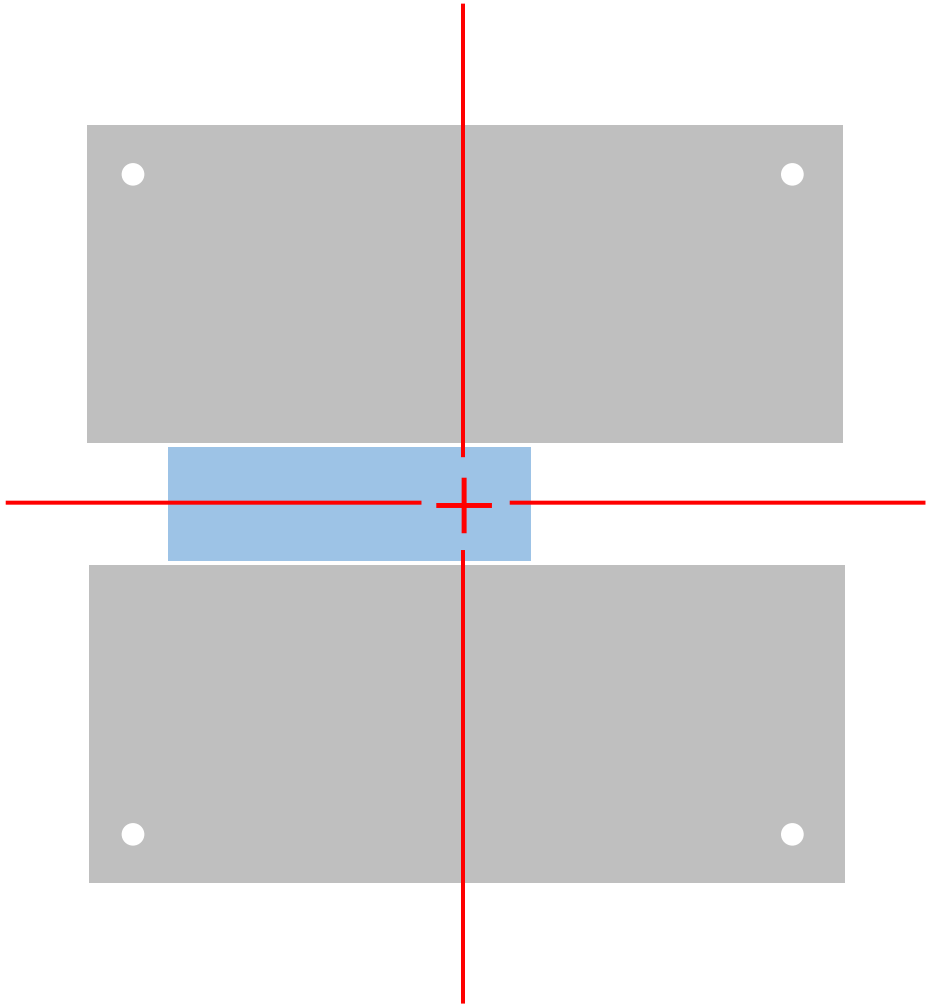


例① 前視圖

這樣可以？

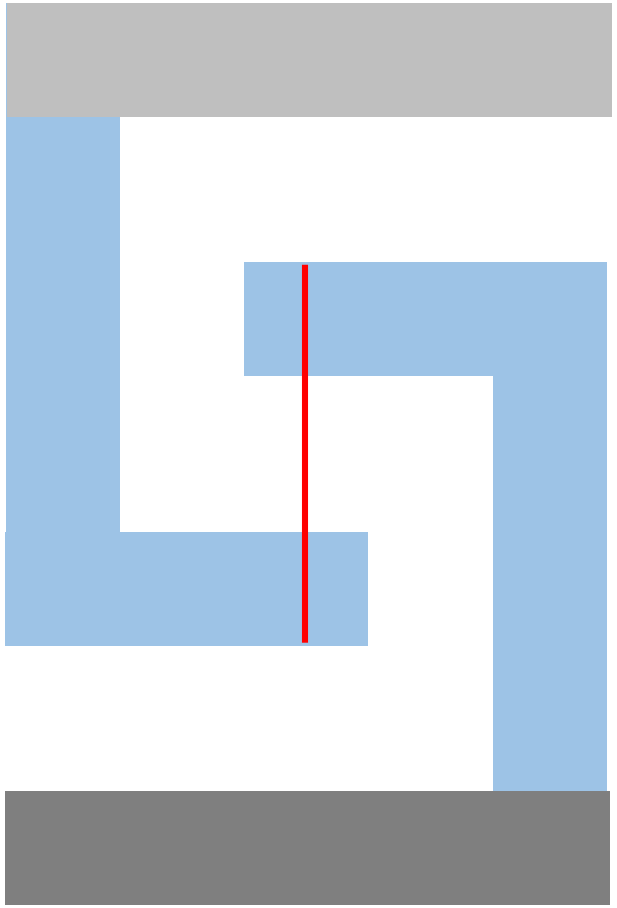


例① 俯視圖

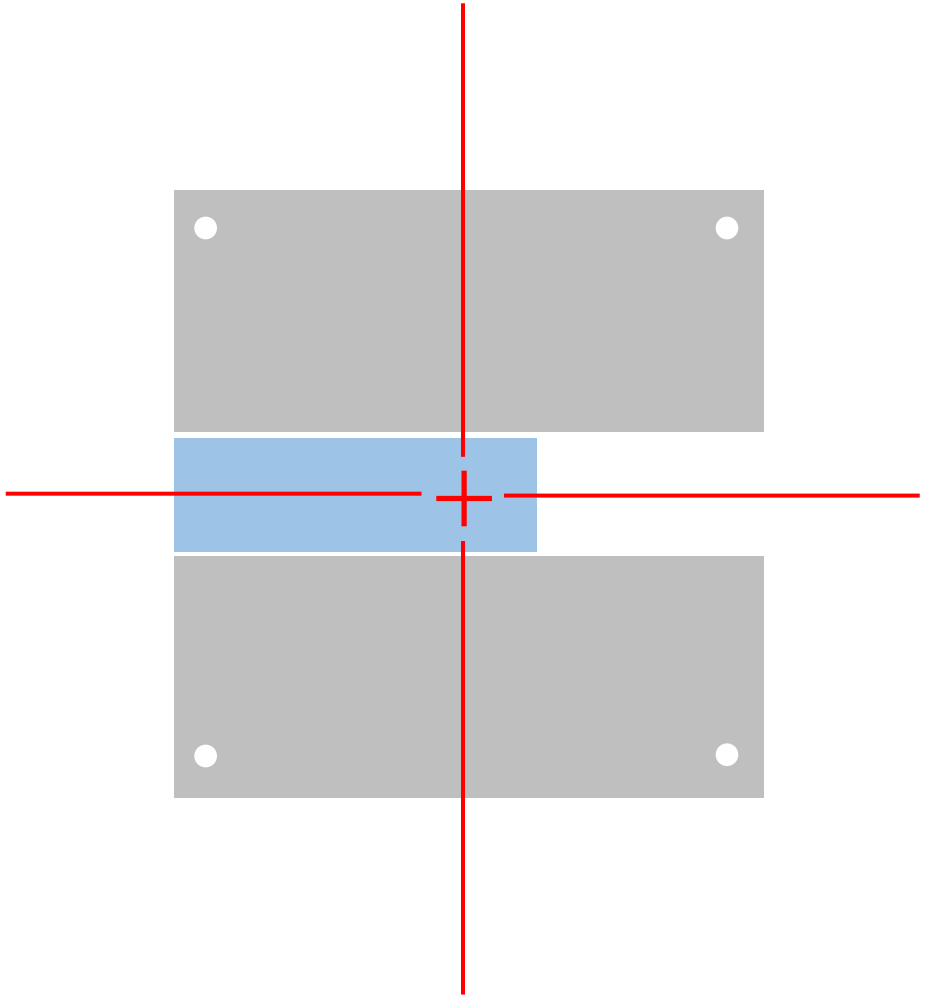


例② 前視圖

這樣可以？

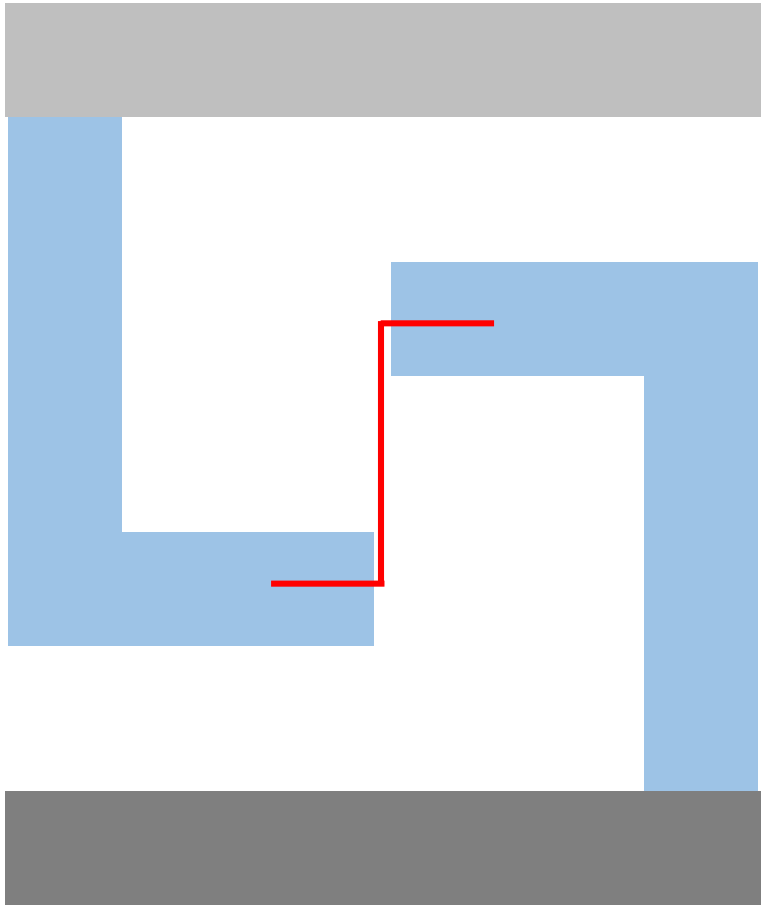


例② 俯視圖

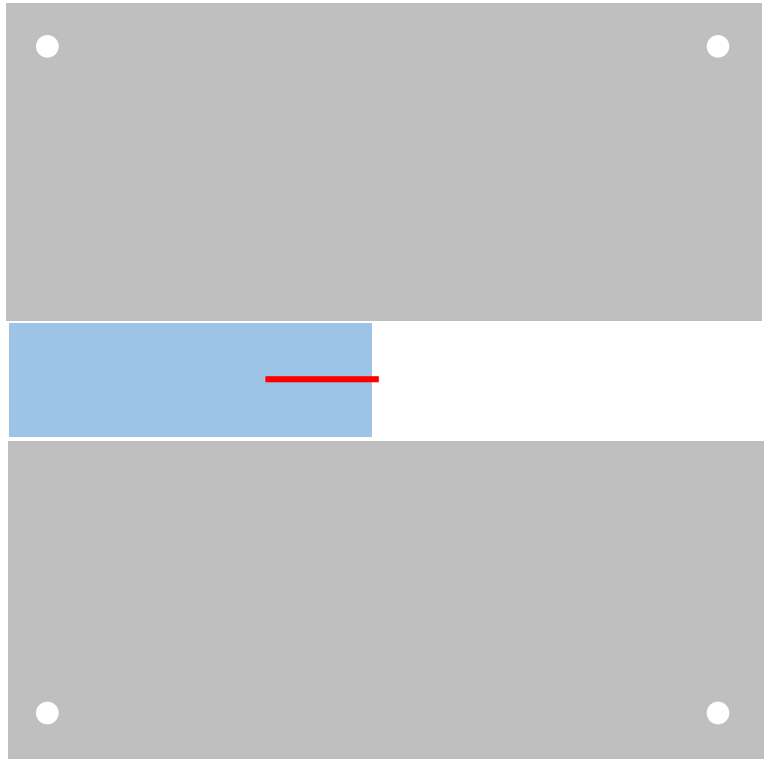


例③ 前視圖

這樣可以？

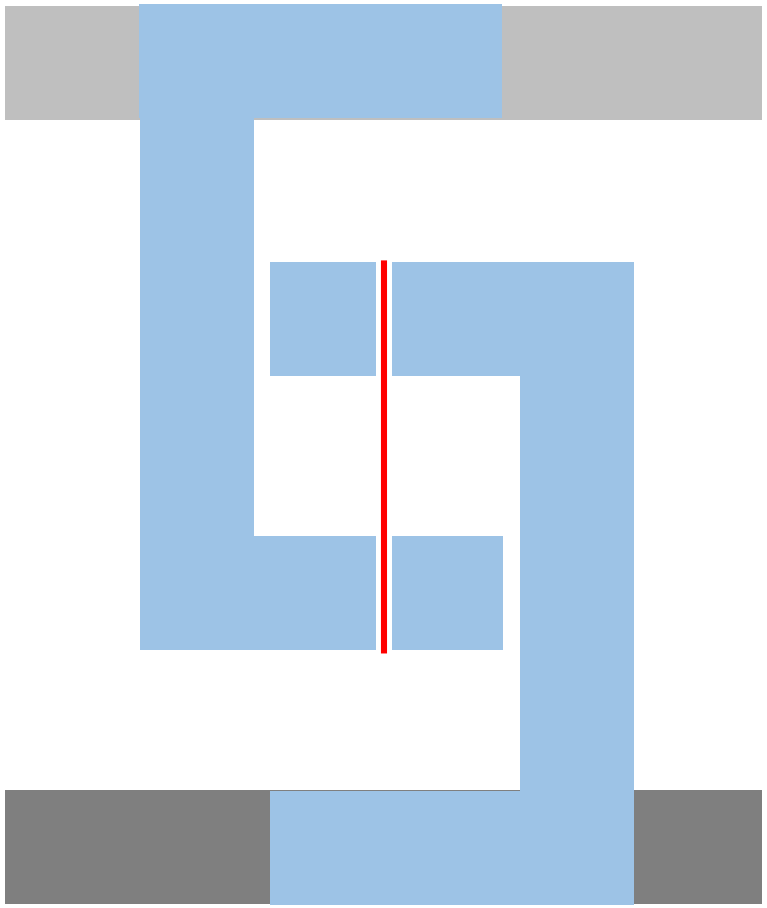


例③ 俯視圖

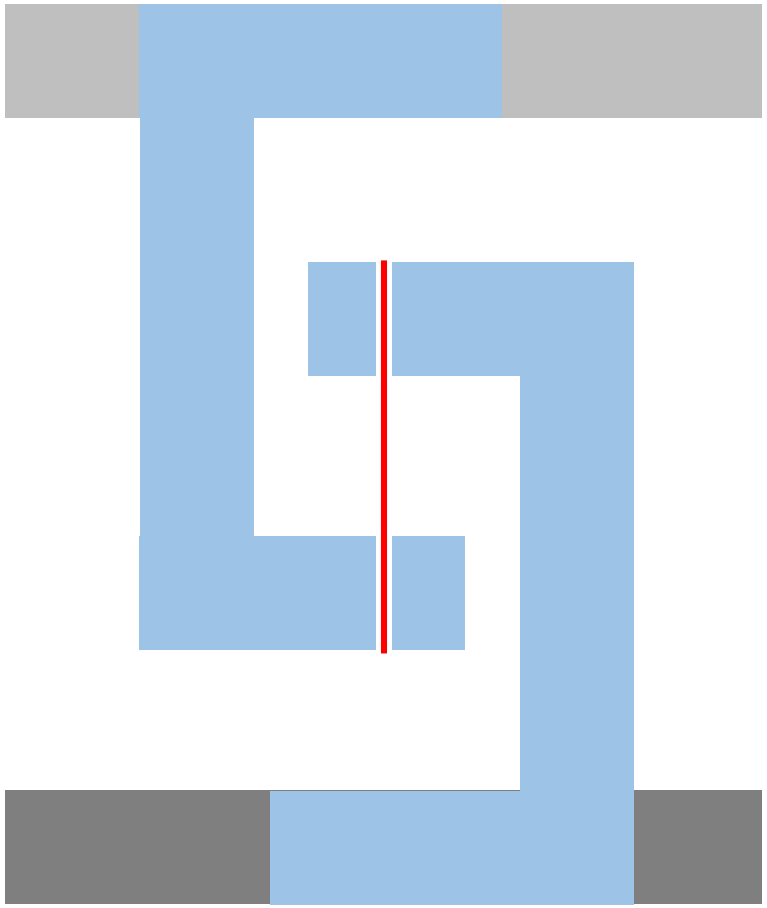


可是

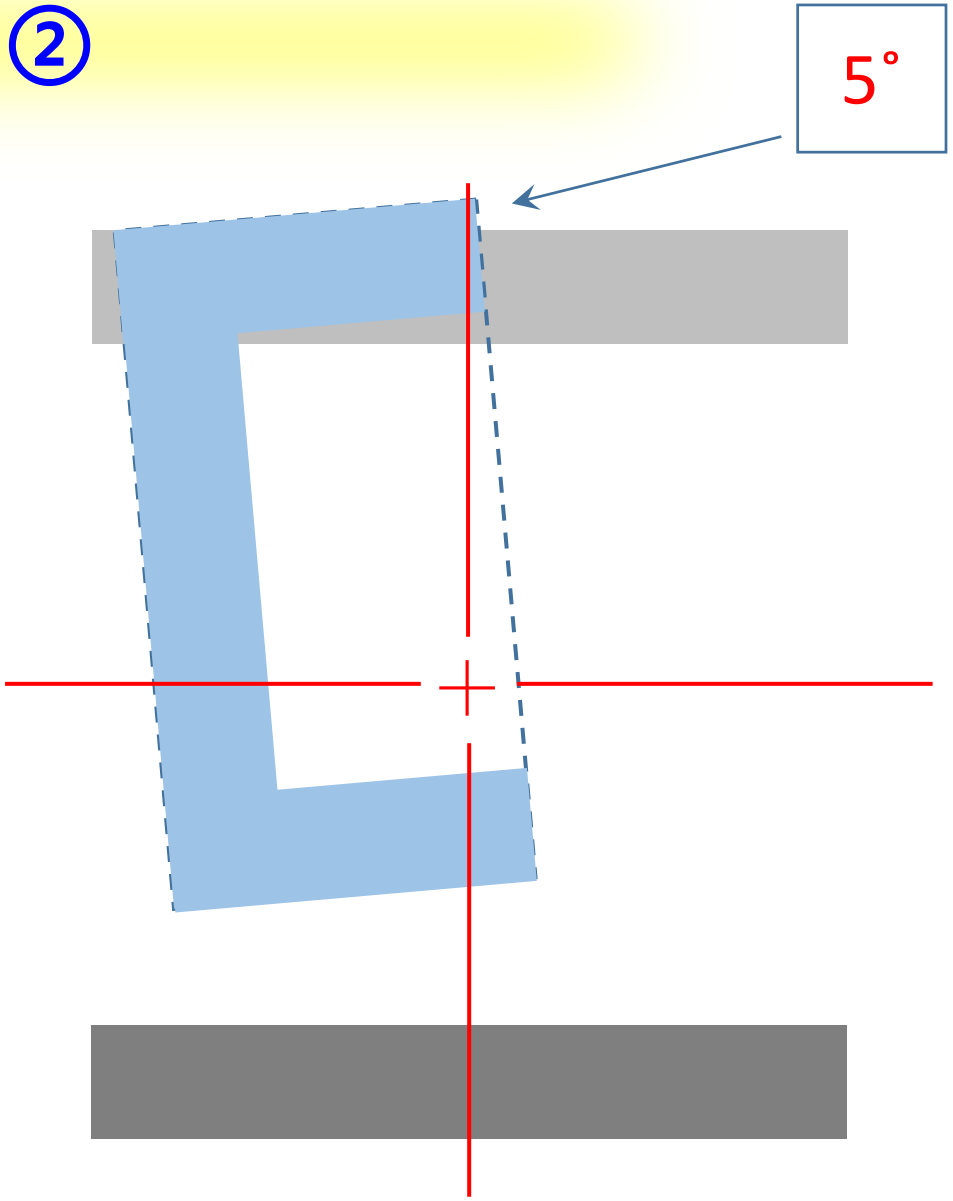
這樣...可以嗎？ ①



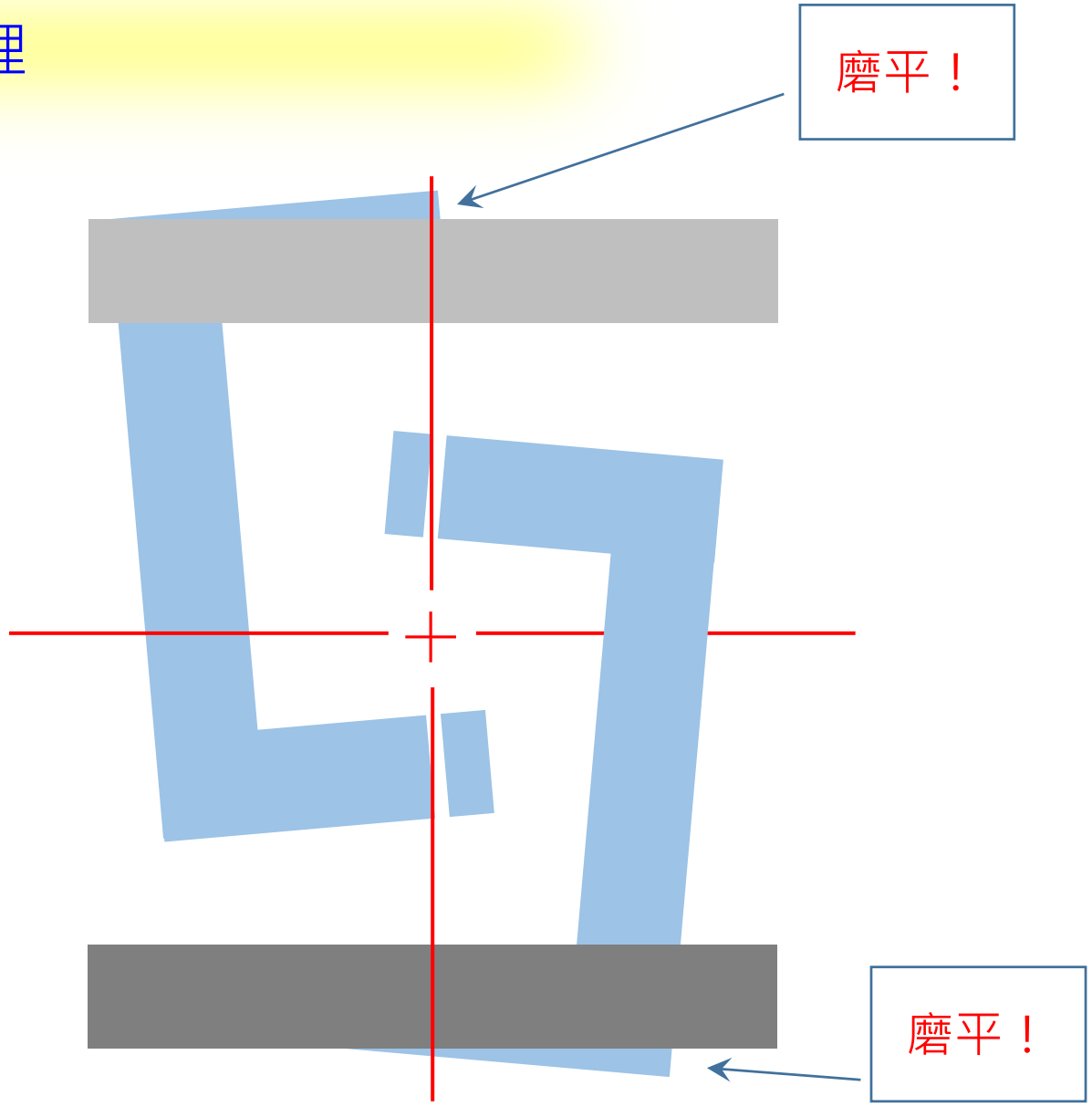
修改！



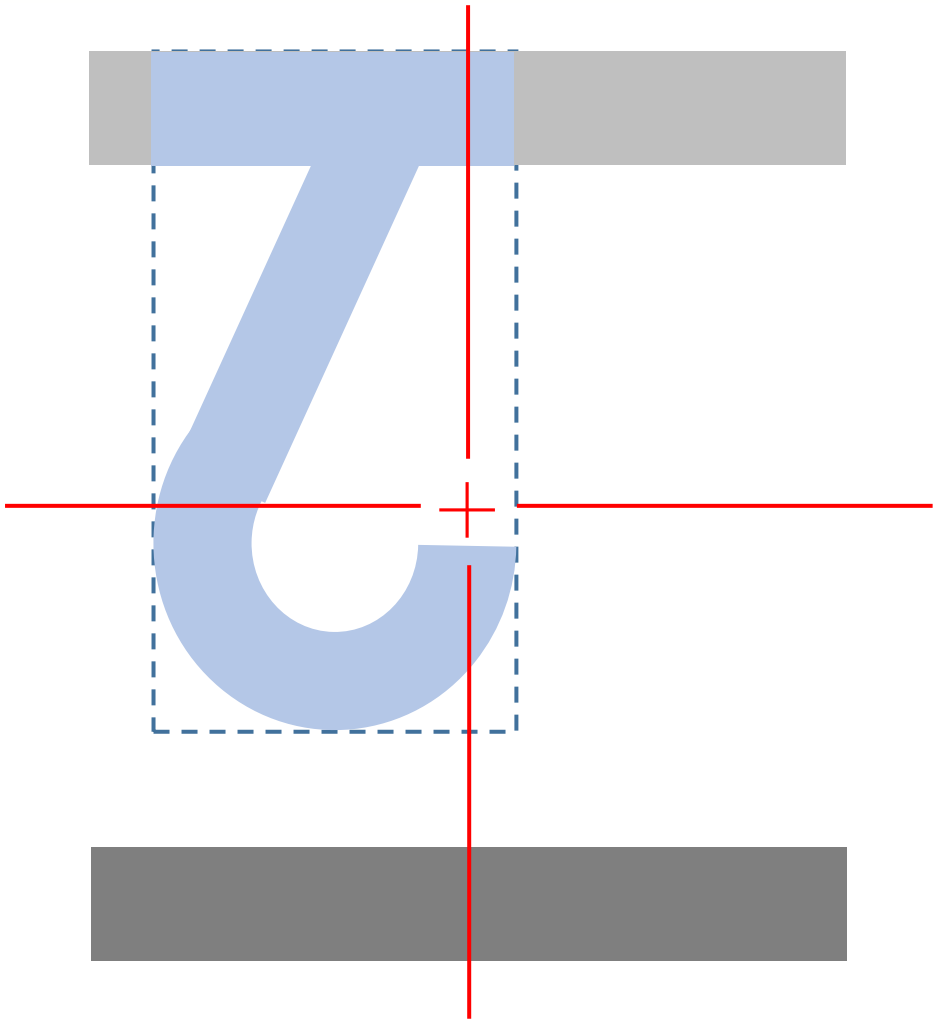
這樣...可以嗎？②



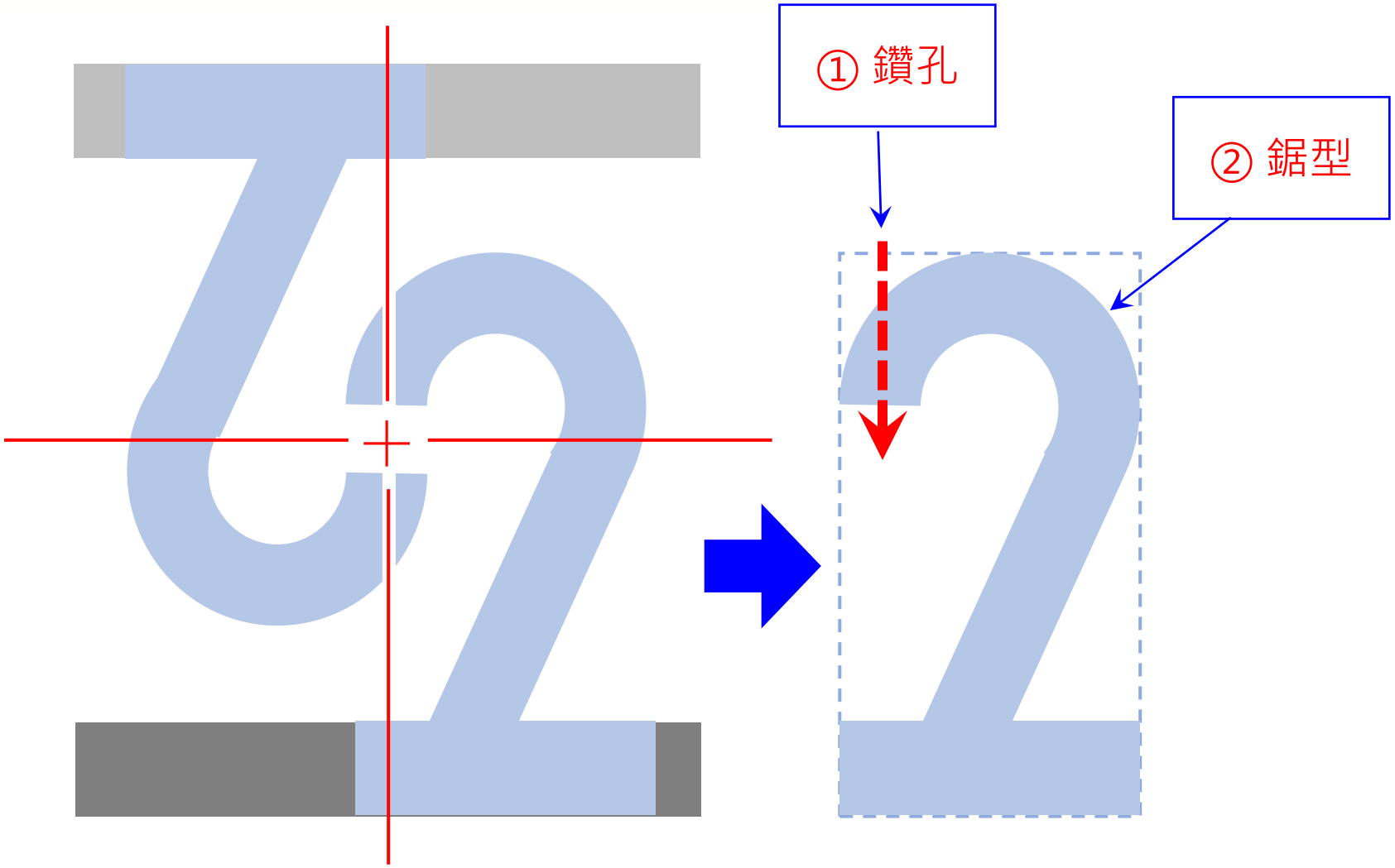
試試看！ 鏡像原理



這樣...可以嗎？ ③



倒勾... 先鑽孔 再鋸型



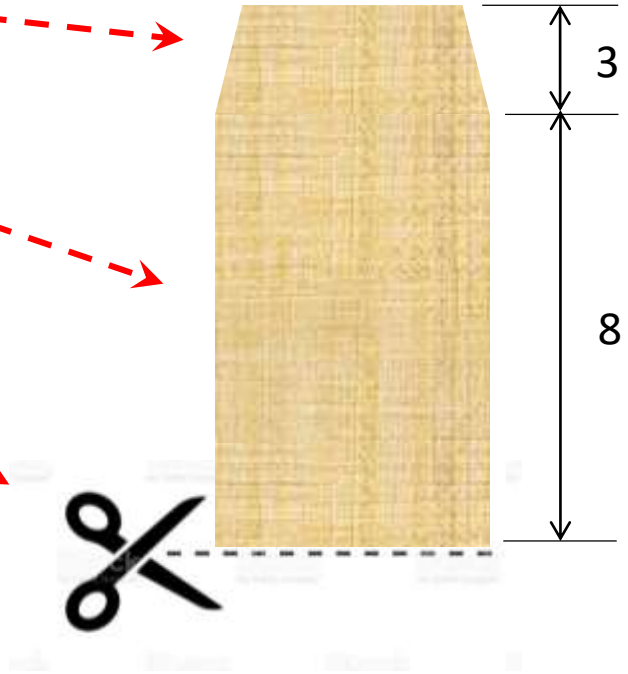
關於「**拉**（釣魚）**線**」...

...密技 ① 竹籤

...頭削圓台 Frustum of a cone

柱長約 8mm

剪斷! 備用



...密技 ② 剪 竹 籤

「斜口鉗」... 竹籤「彈射！」
注意安全！

diagonal cutting nipper

「老虎鉗」... 更安全。

vise

flat tongs

cutting pliers

combination pliers

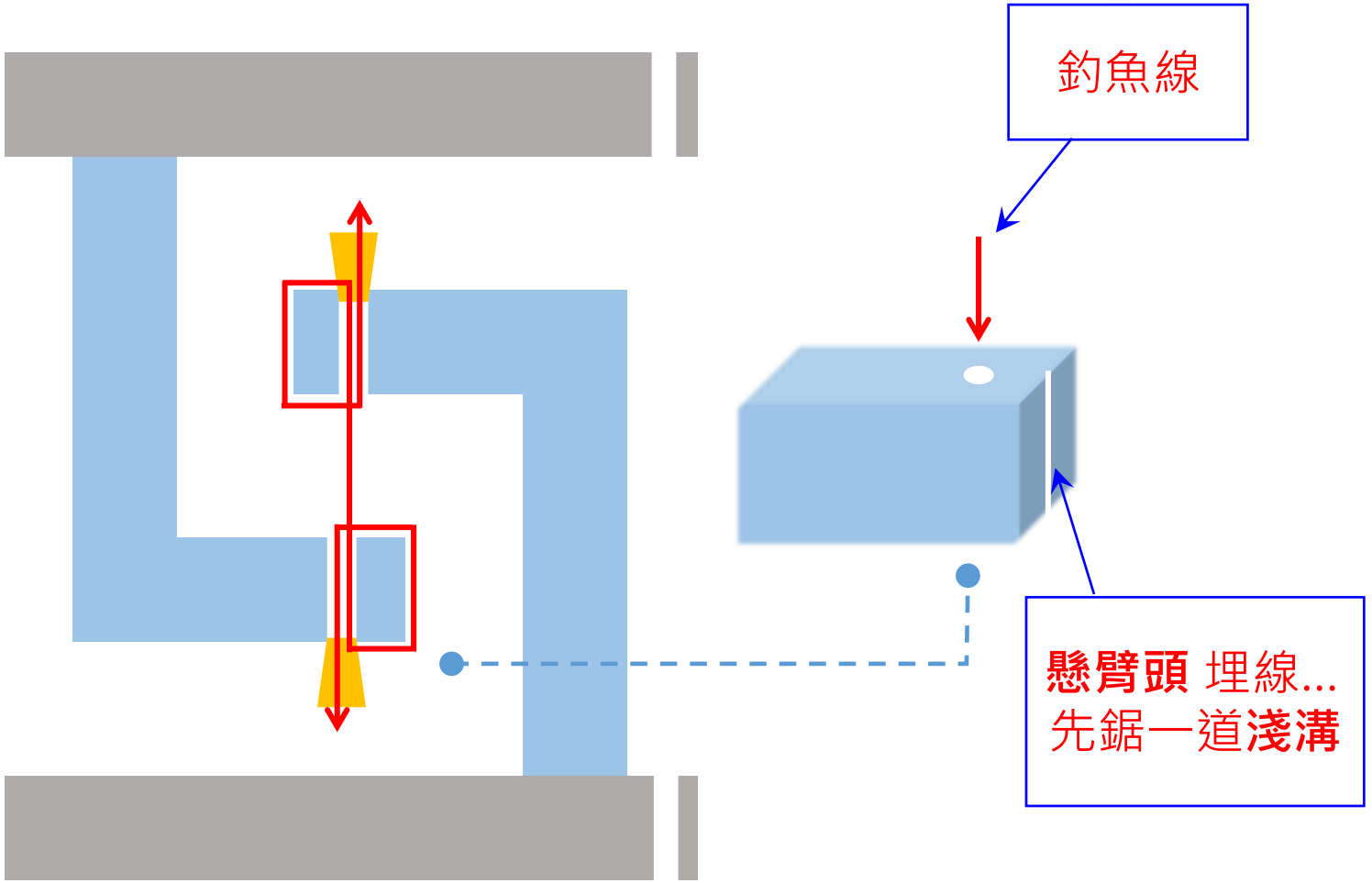
...密技 ③ 塞 竹 籤

「**尖嘴鉗**」... 好用。

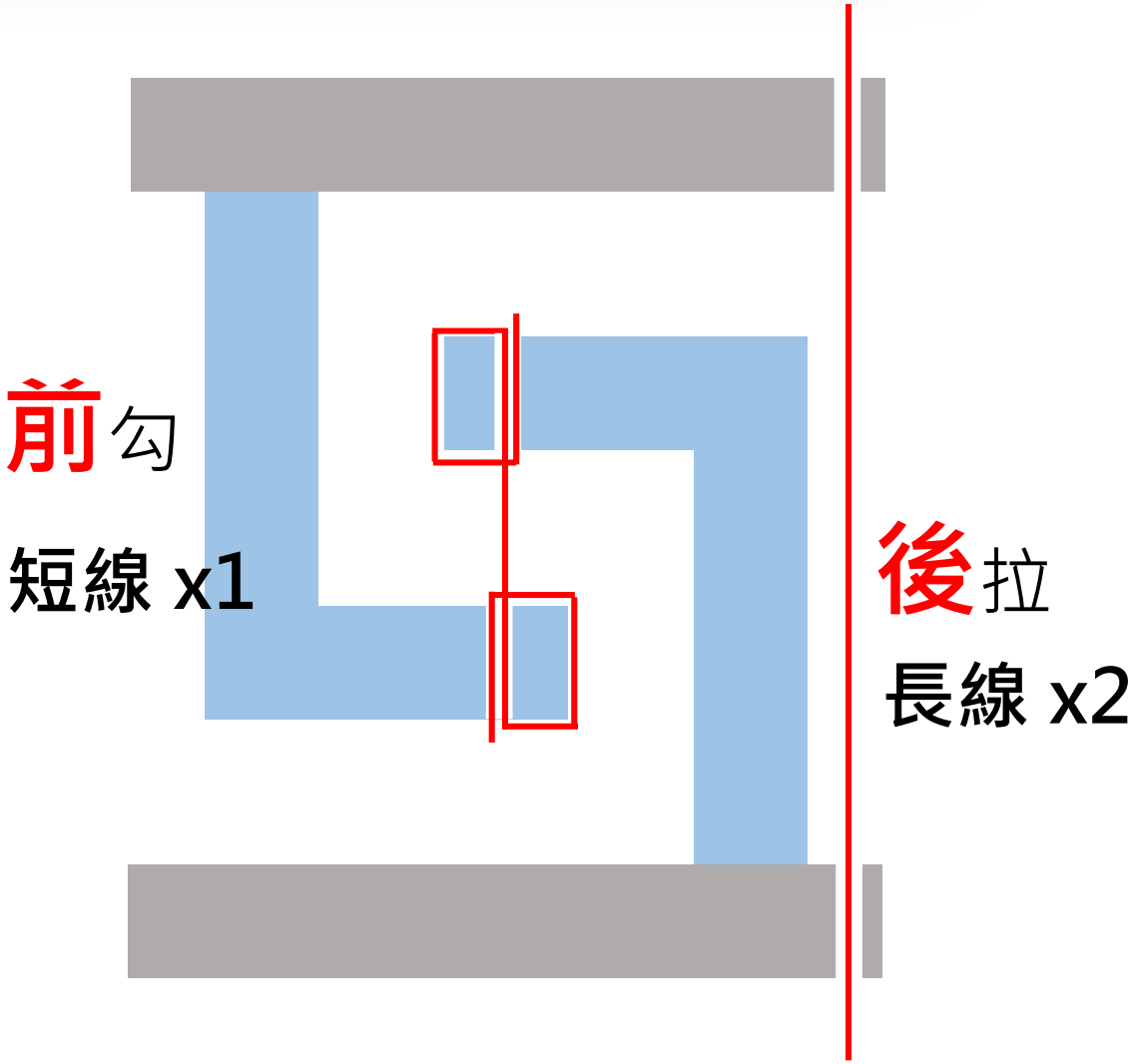
long flat nose pliers

...密技④ 中線

- **多繞一圈**，
  拉緊、塞竹籤。



...密技 ⑤ 動態平衡



...密技 ⑥ 互相幫忙

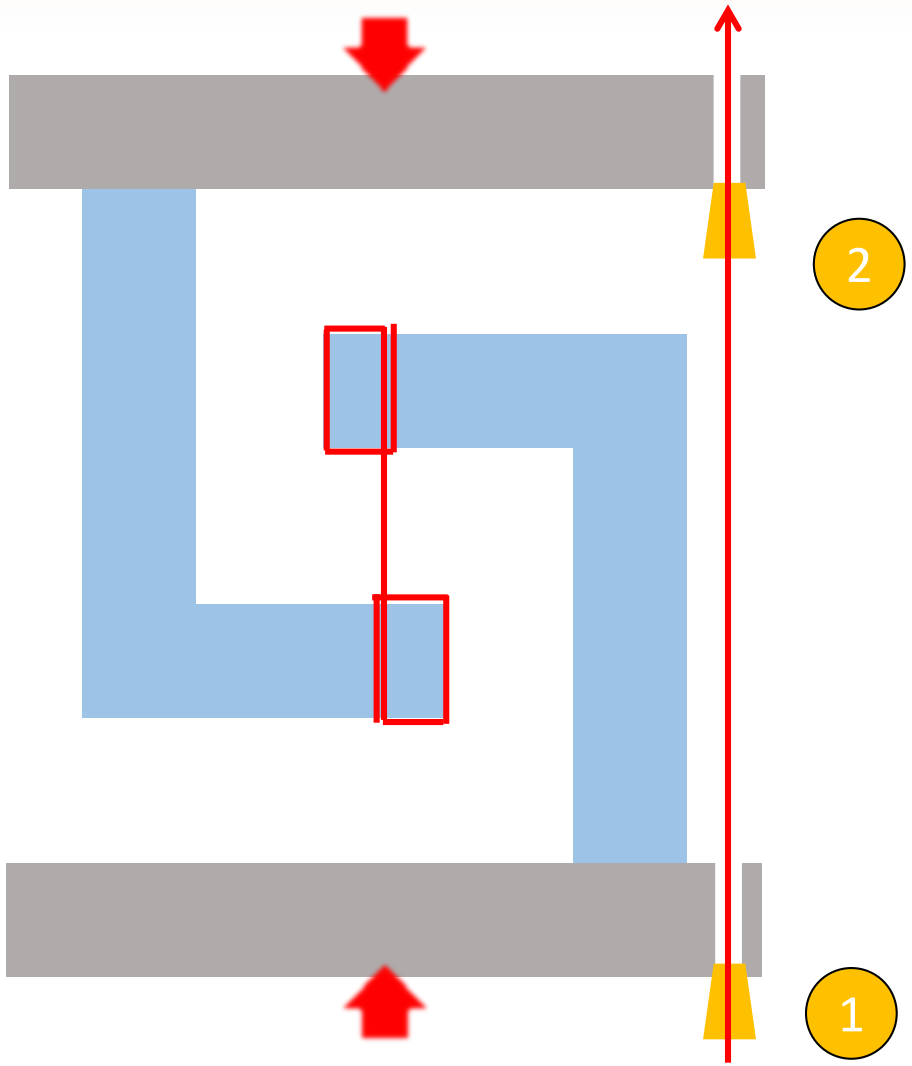
保持稍微用力

反向壓迫上下板

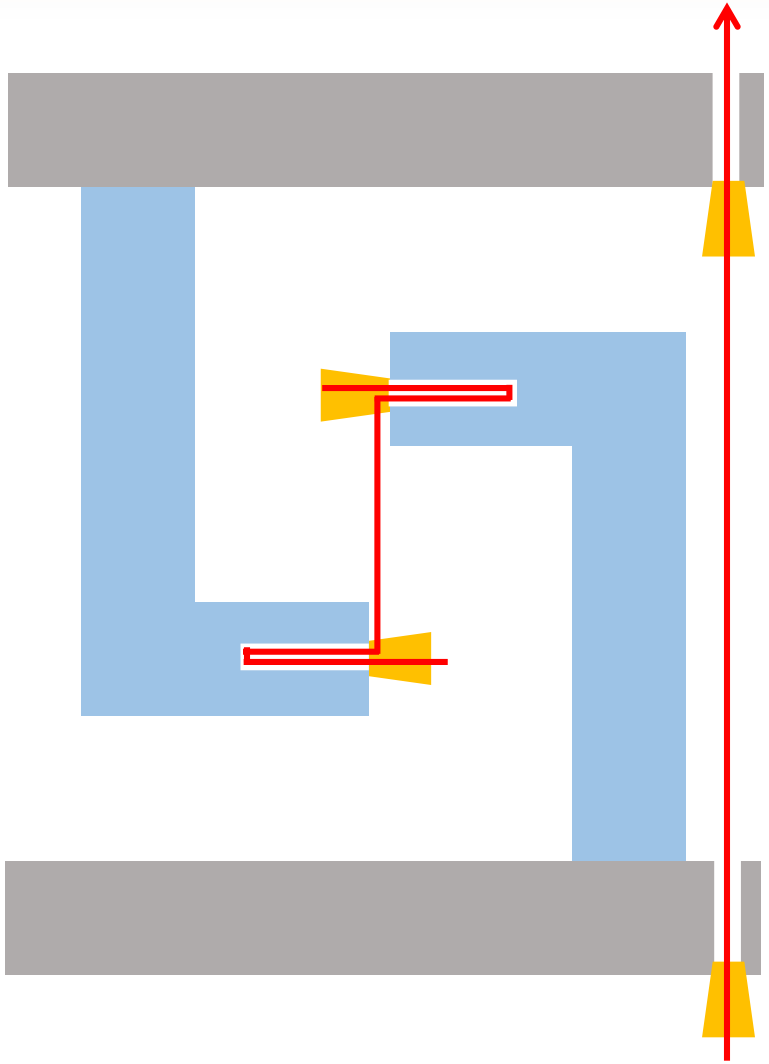
然後順著拉（緊）力
方向塞竹籤...

順序 1 ...塞滿固定

順序 2 ...拉緊再固定



…密技 ⑦ 番外篇　「切點」連線



- 木工瞬間膠...**有毒！**人體勿觸。
- 操作**注意安全**：帶鋸機、砂磨機、鑽床。
- 先要求... **功能**正常。
- 再追求... **觸感**加分。
- 鼓勵自己...往 2.0 前進！