

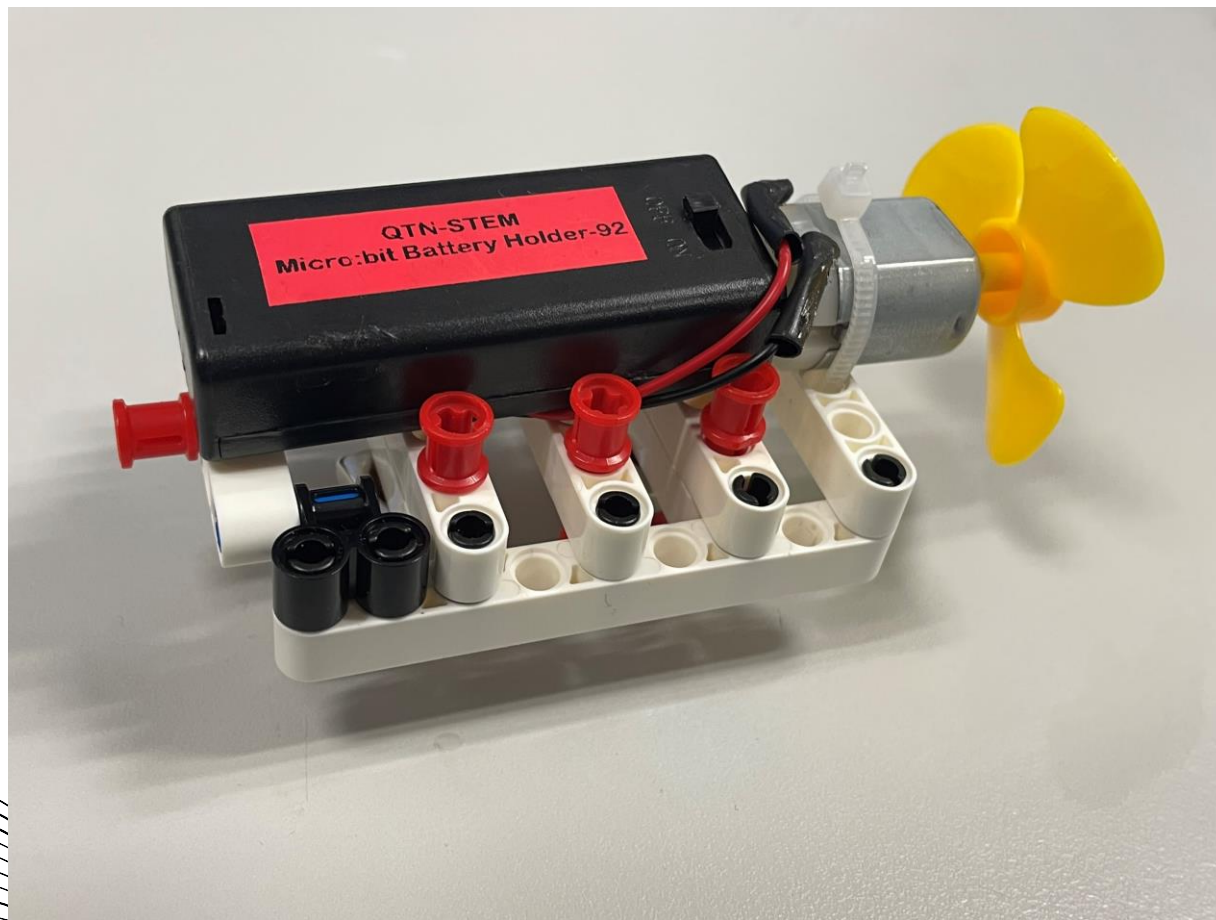
2024-2025 Quality Education Fund Thematic Network - Tertiary Institutes

STEAM Education with Self-directed and Progressive Learning of  
Engineering Design Process for Problem-solving  
透過STEAM教育自主學習有序發展STEAM素養

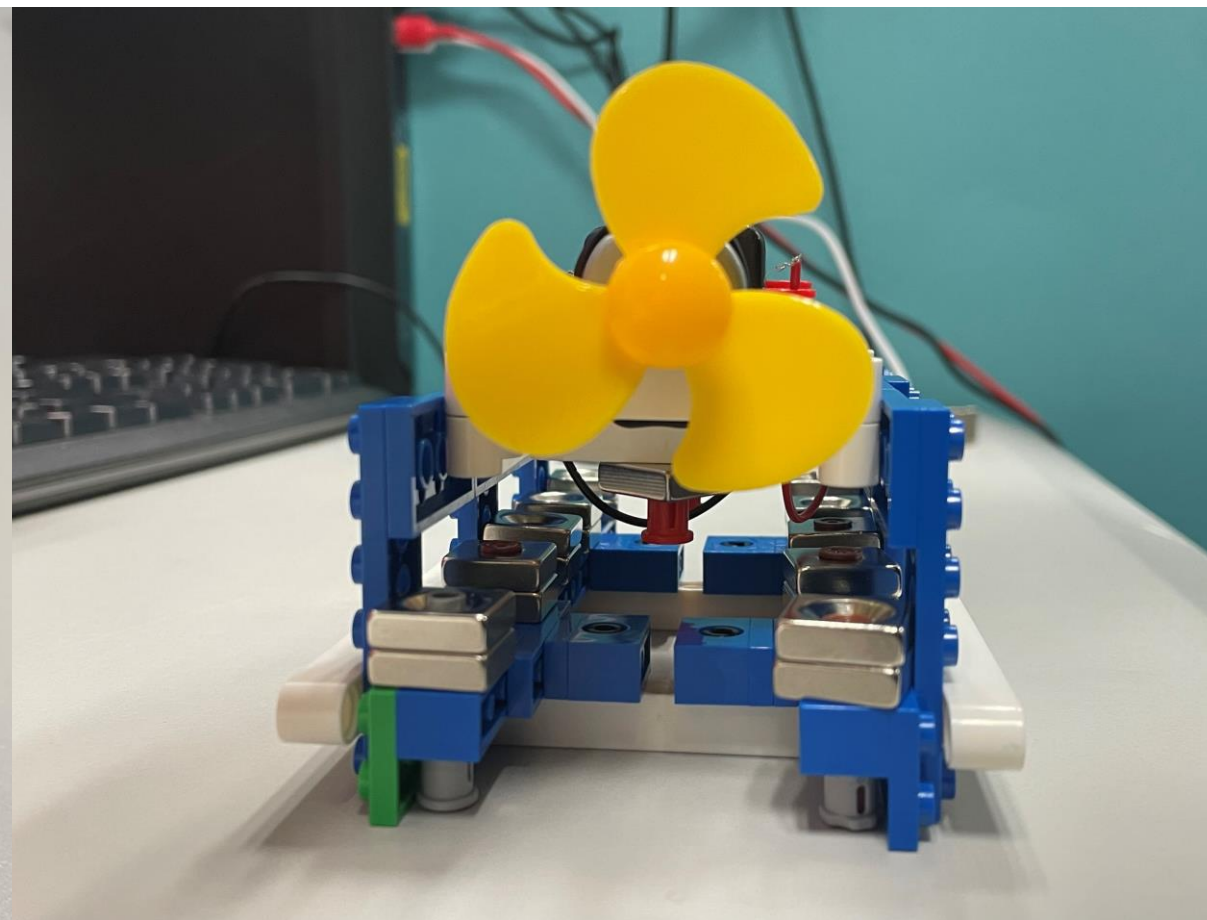
# 磁浮列車

匡智屯門晨崗學校

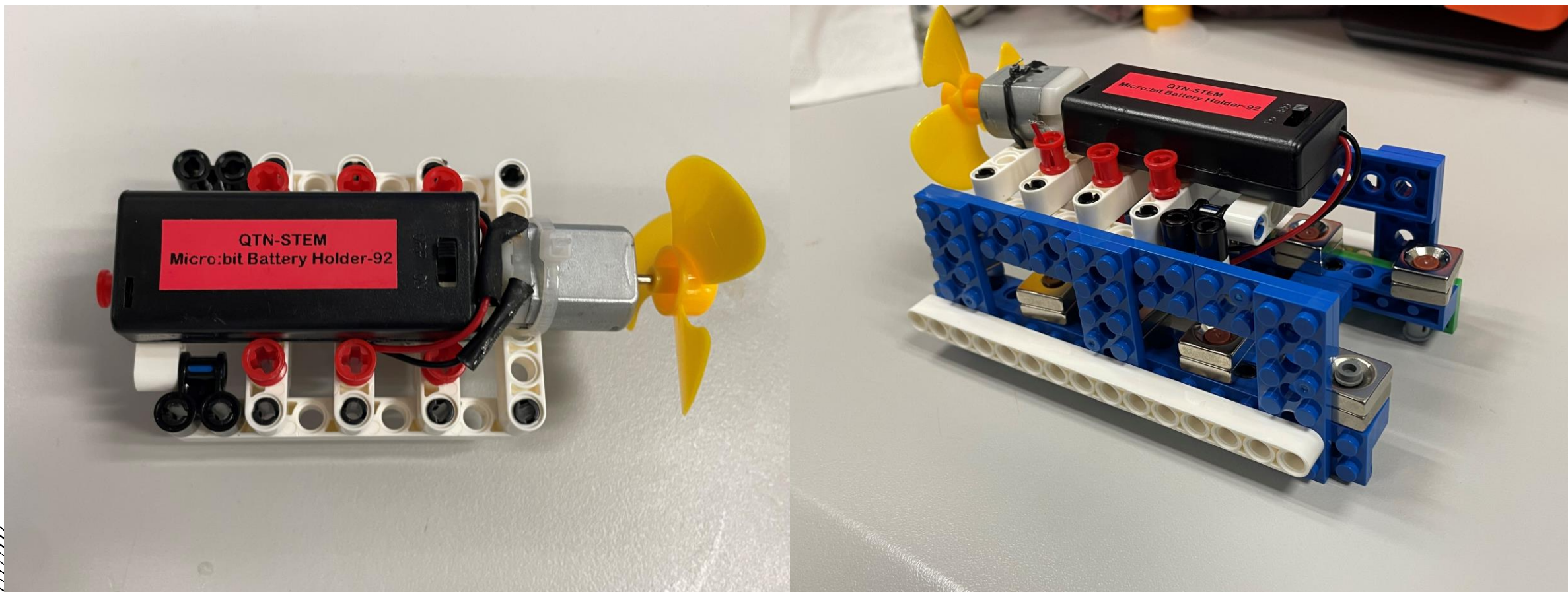
磁懸浮小車



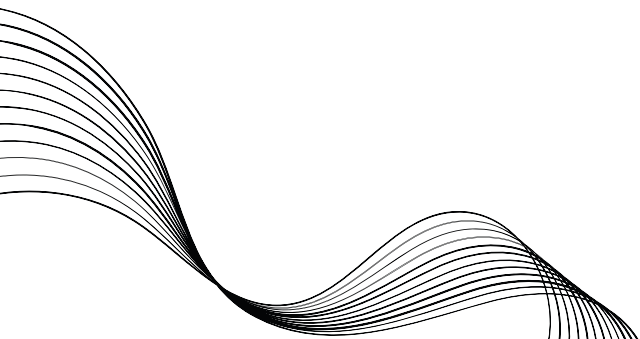
軌道



# 動力裝置



# 磁懸浮小車搭建



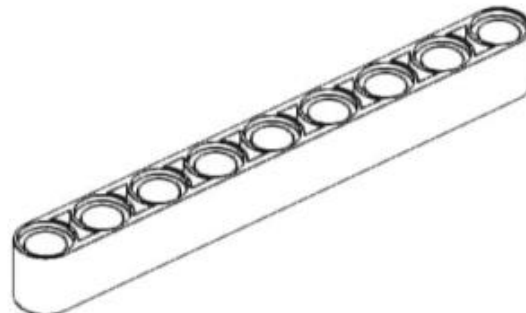
# 車架LEGO材料清單



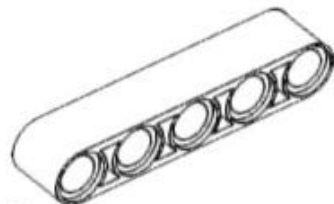
12x  
4459  
Black



2x  
32291  
Black



2x  
40490  
White



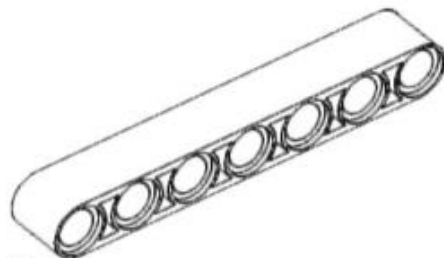
3x  
32316  
White



8x  
32054  
Red

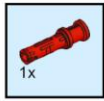


2x  
3749  
Blue

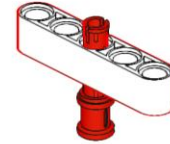
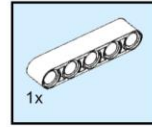


4x  
32524  
White

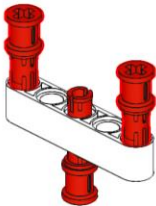
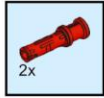
1



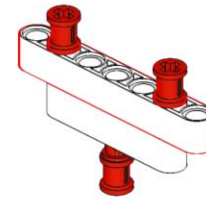
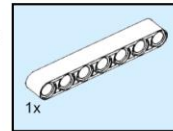
2



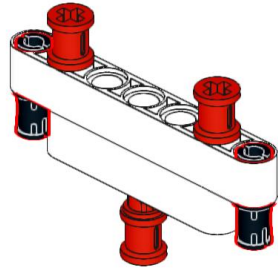
3



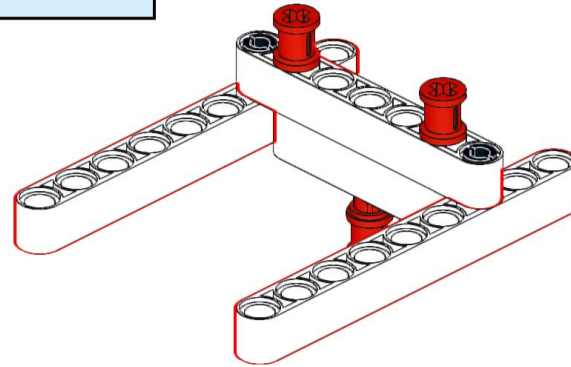
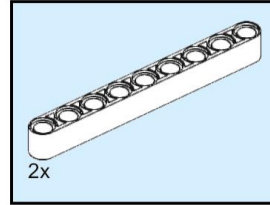
4



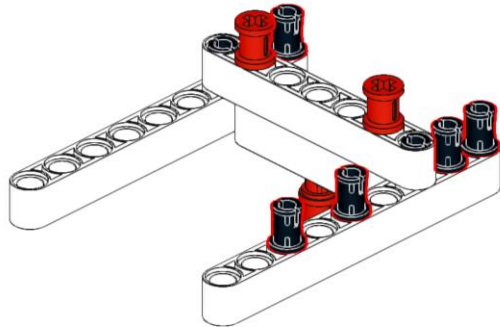
5



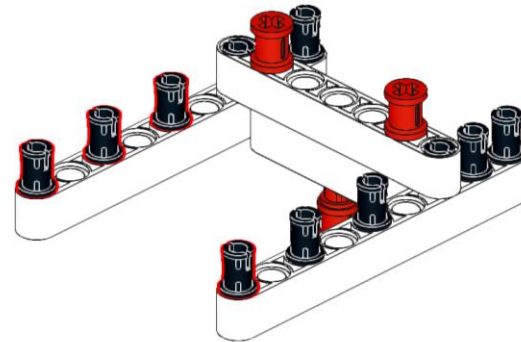
6



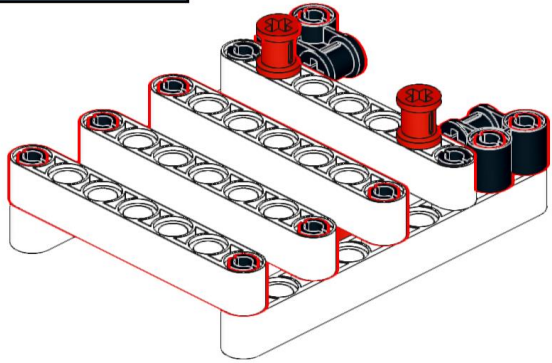
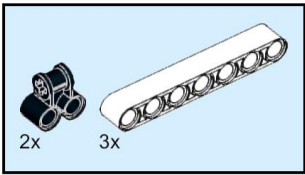
7



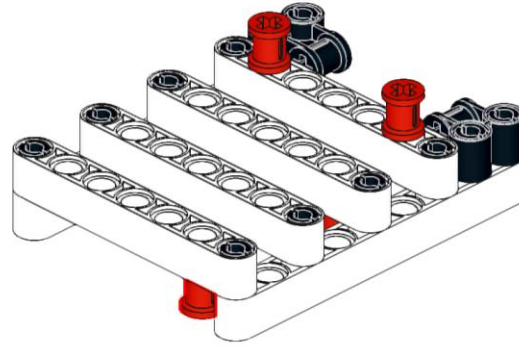
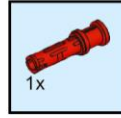
8



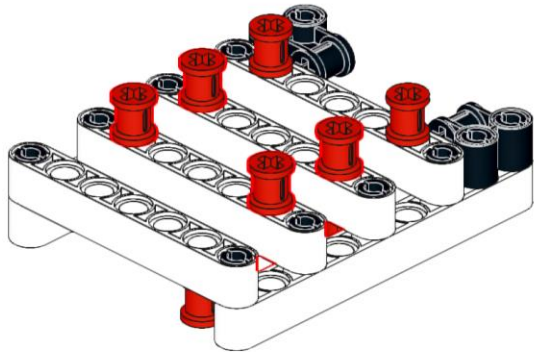
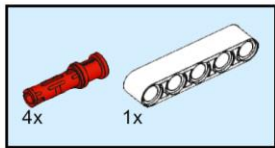
9



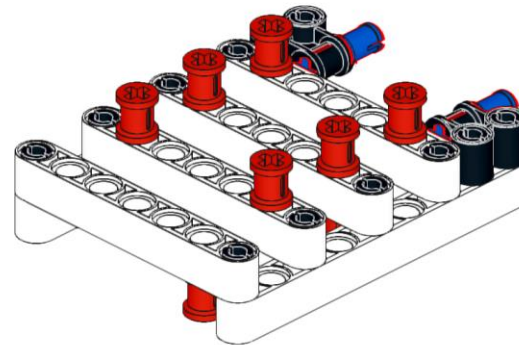
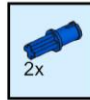
10



11

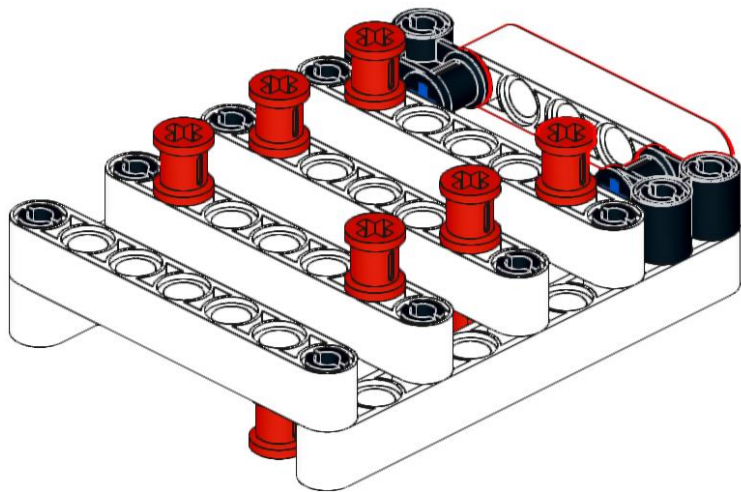
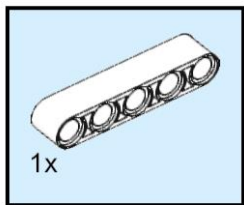


12

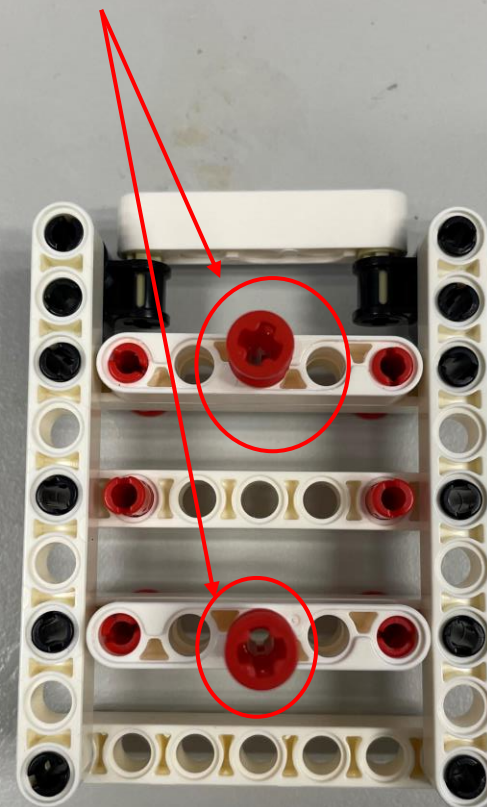




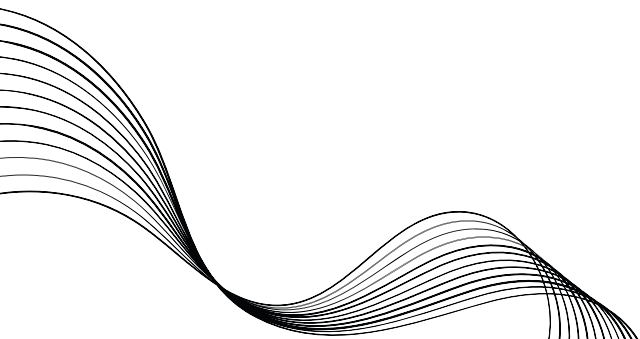
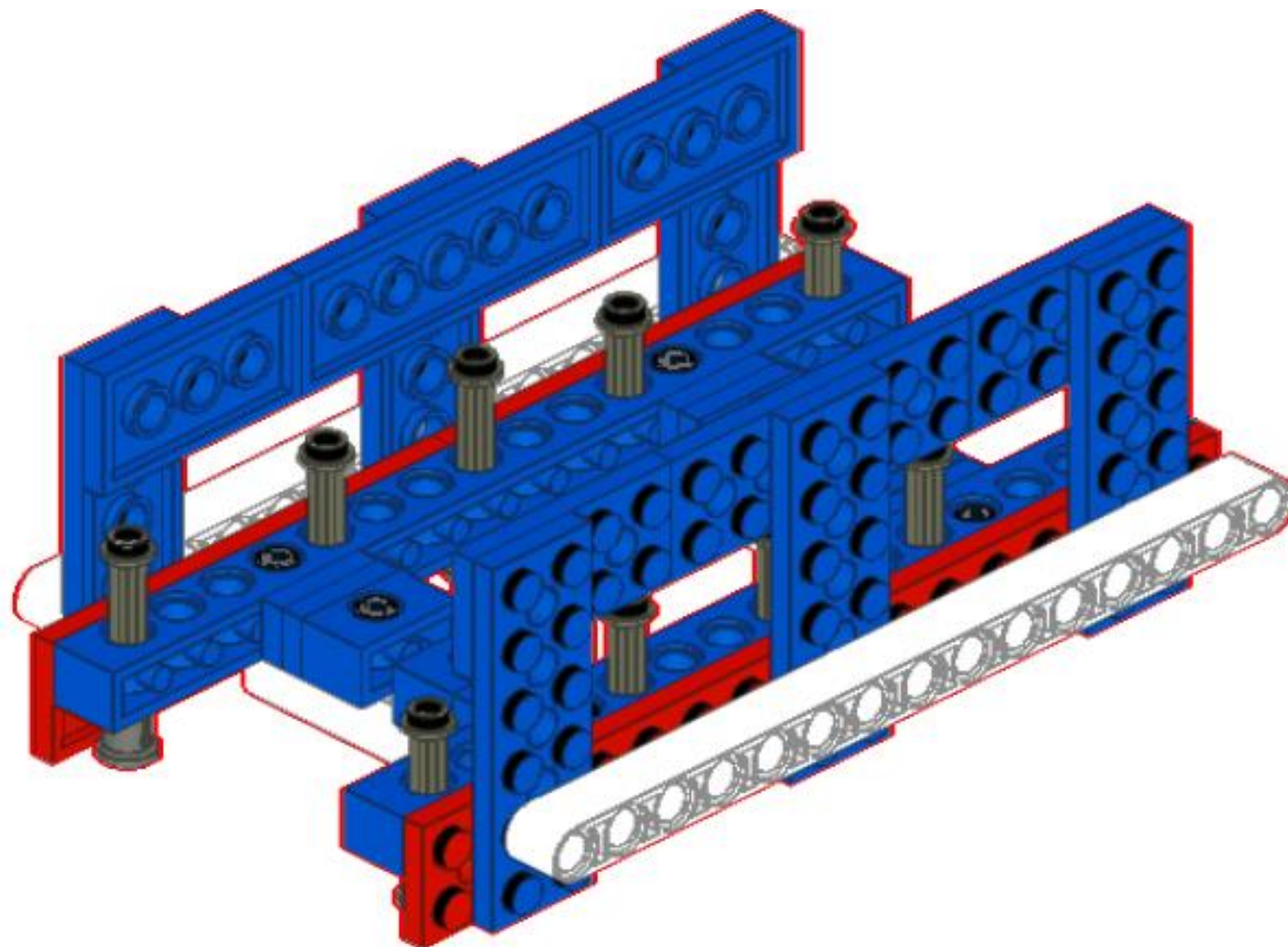
# 13



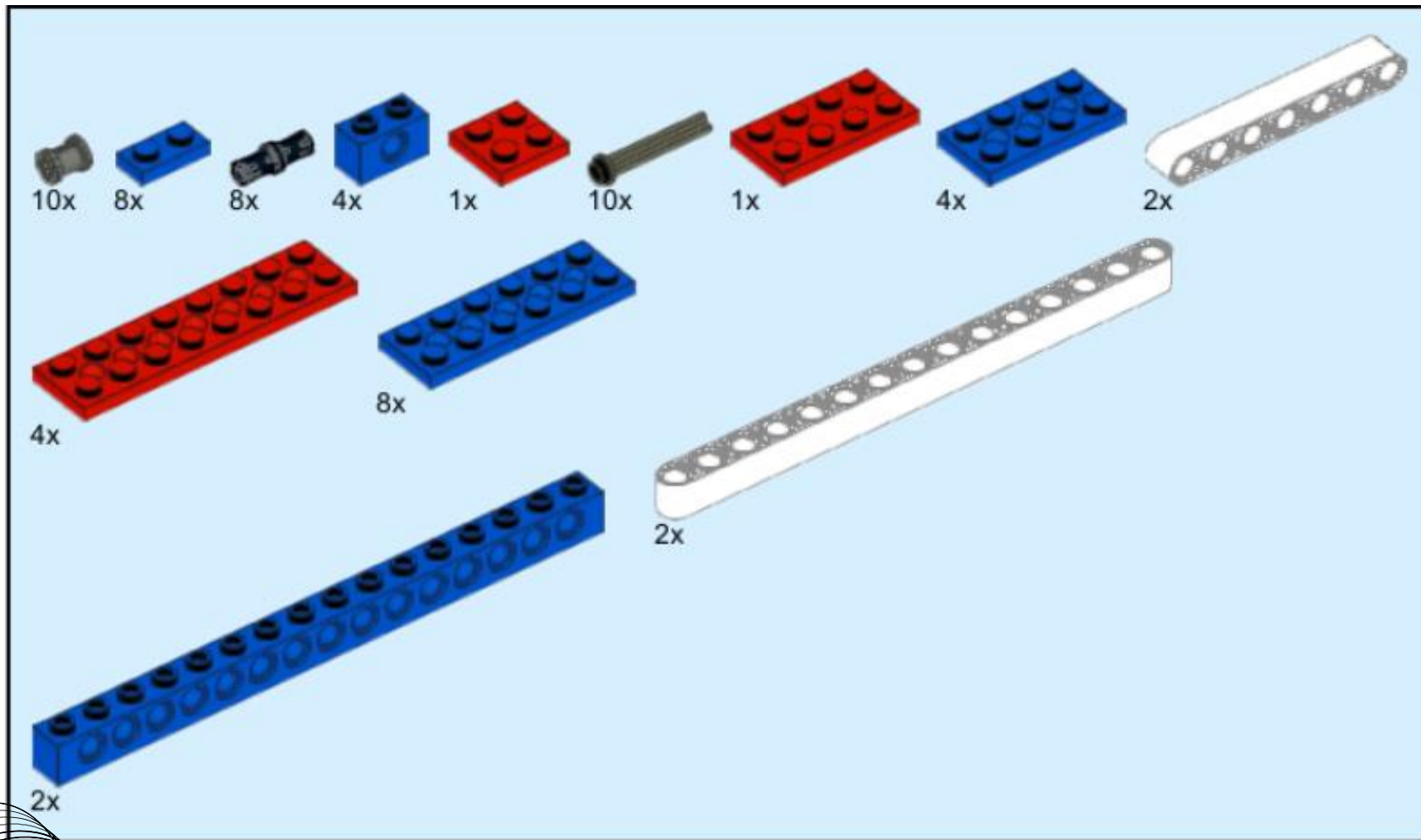
加裝磁石 ( 注意極性相同 )

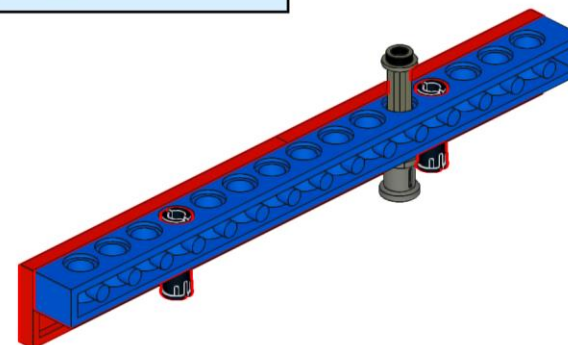
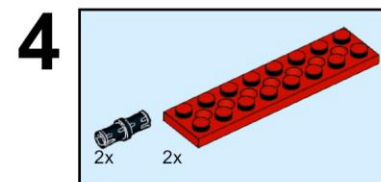
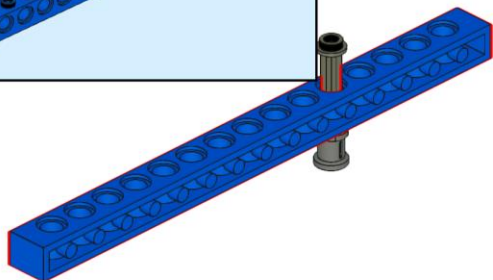
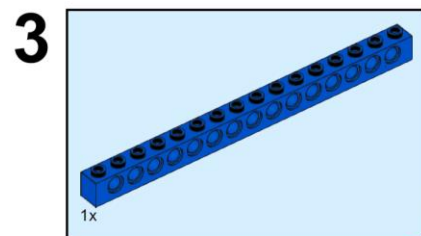
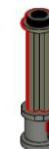
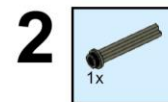


# 軌道架LEGO

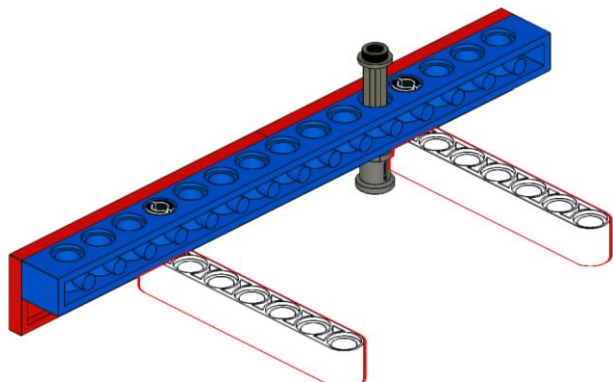
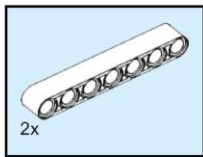


# 軌道架LEGO材料 ( 1 set )

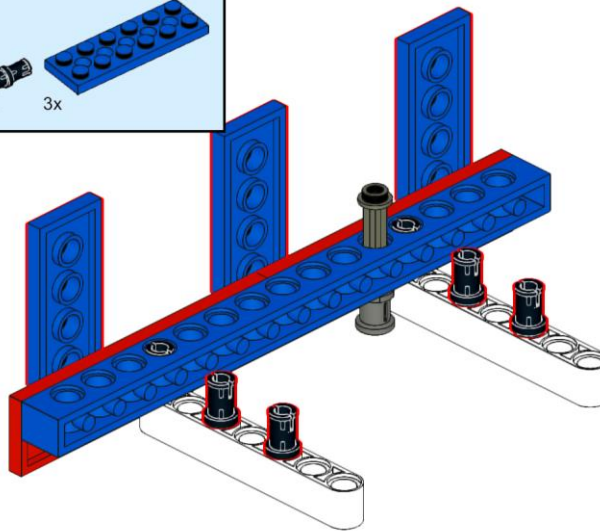
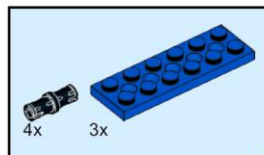




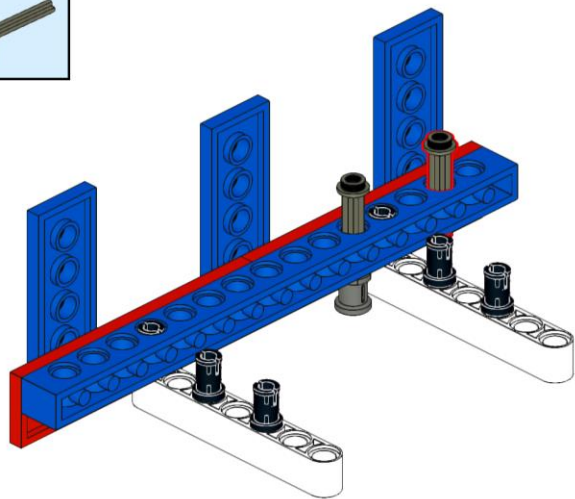
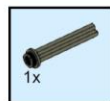
5



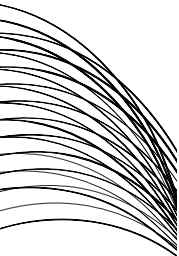
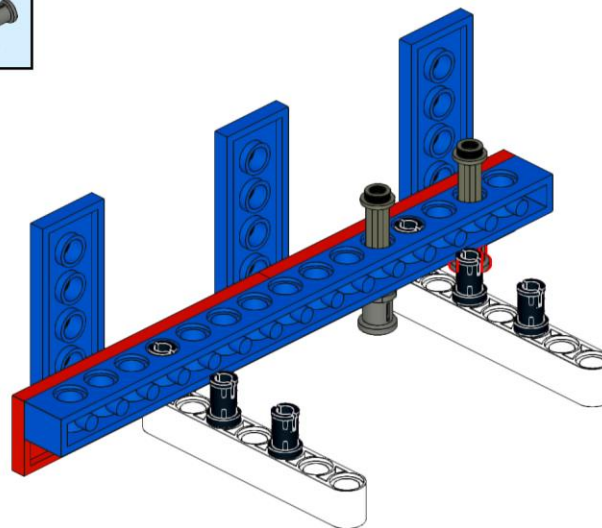
6




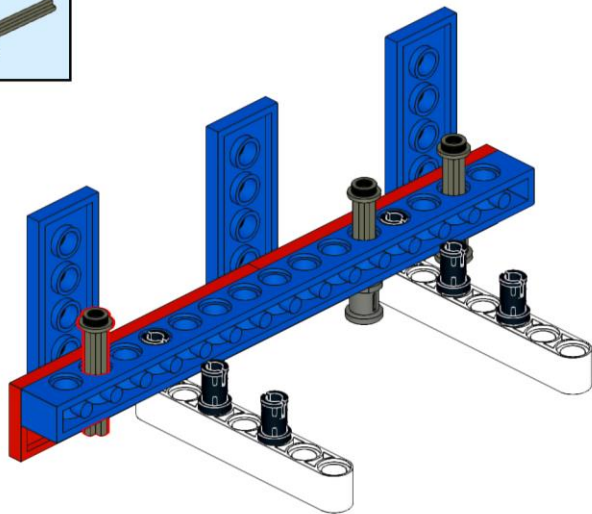
7



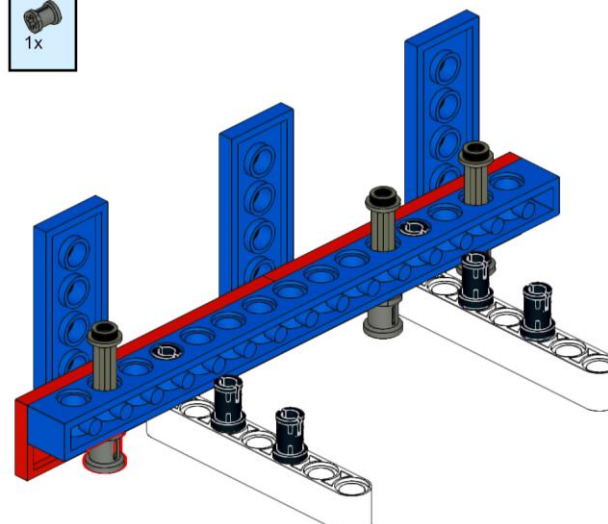
8




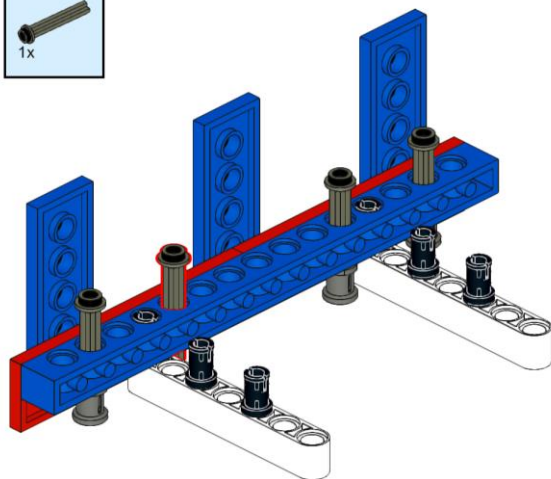
9  1x



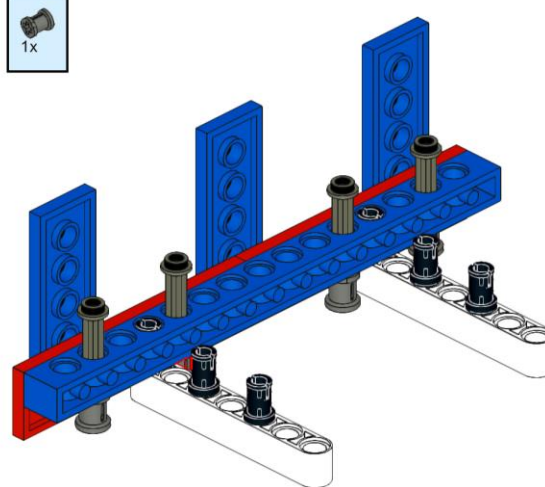
10  1x



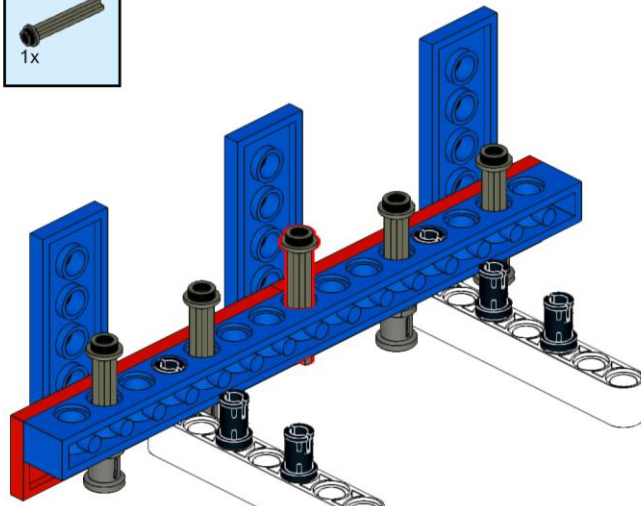
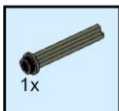
11  1x



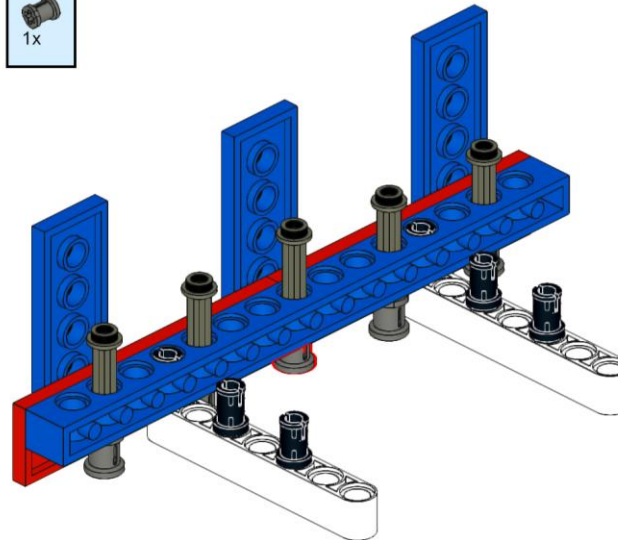
12  1x



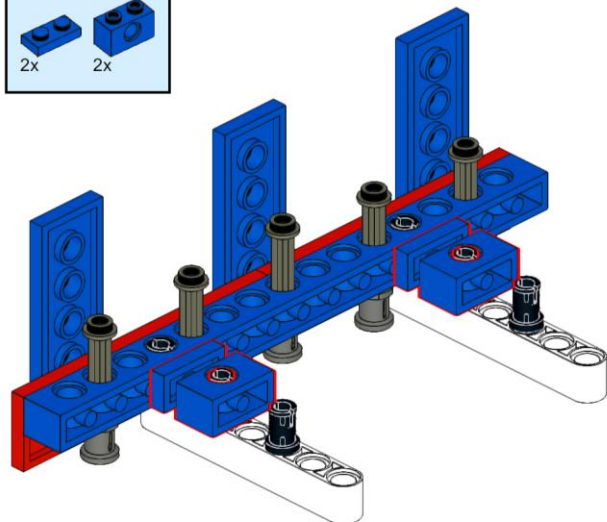
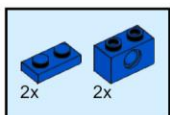
13



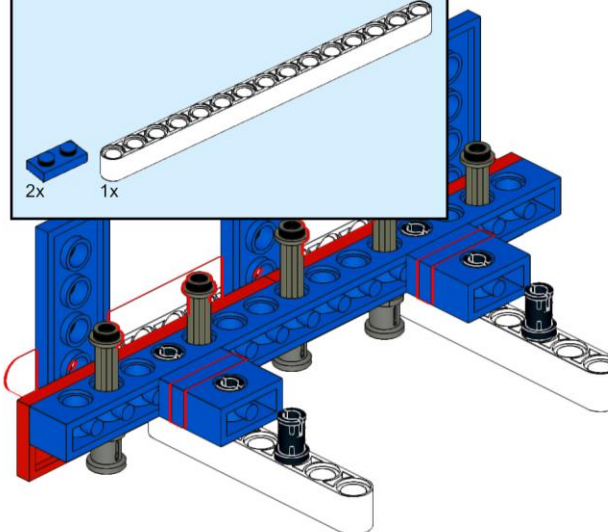
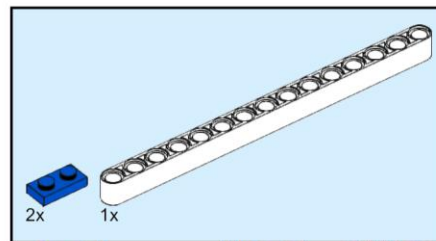
14



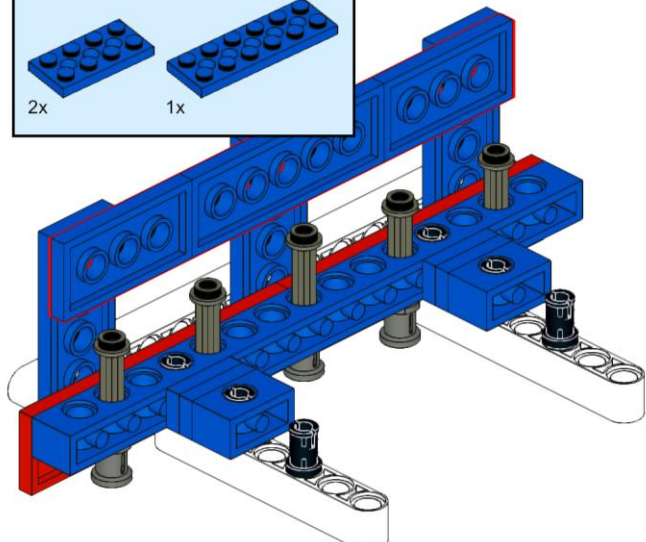
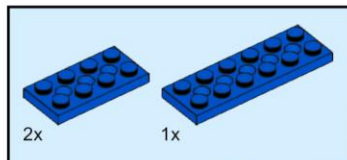
15



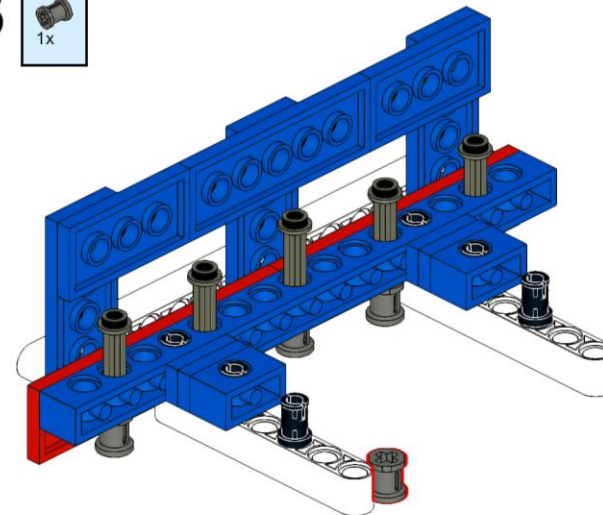
16



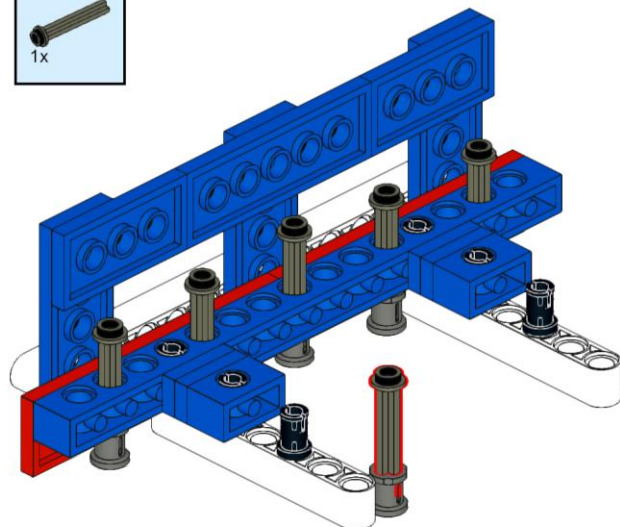
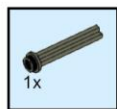
17



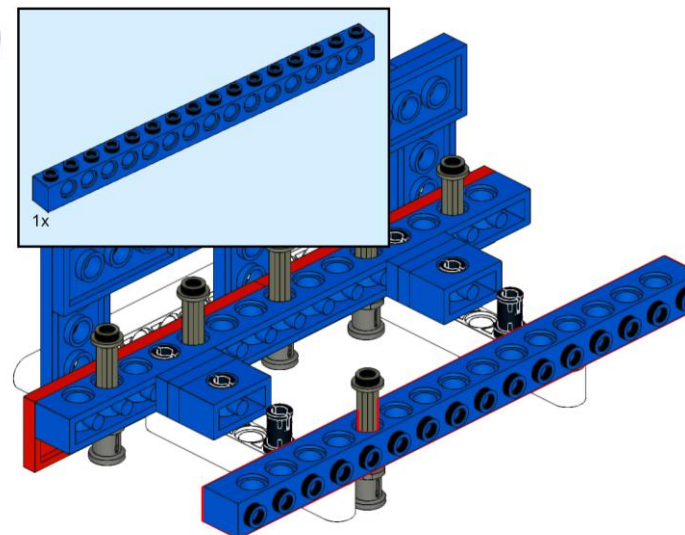
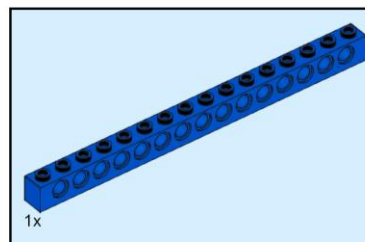
18



19

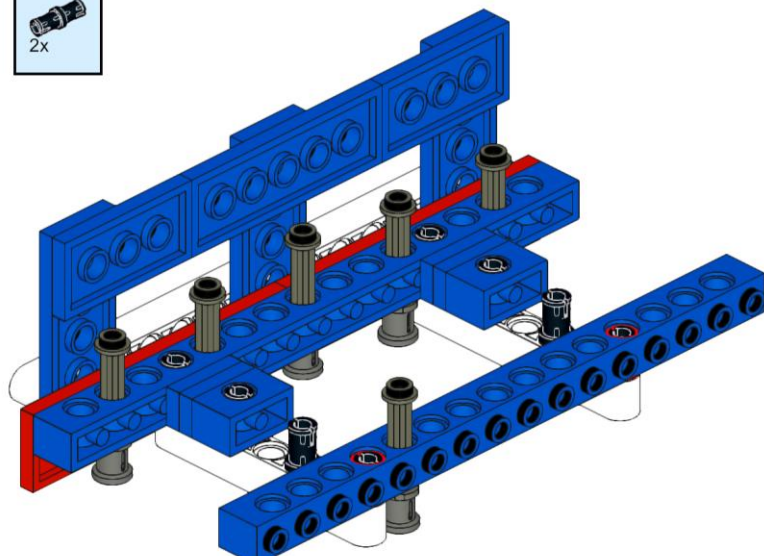


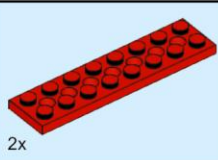
20

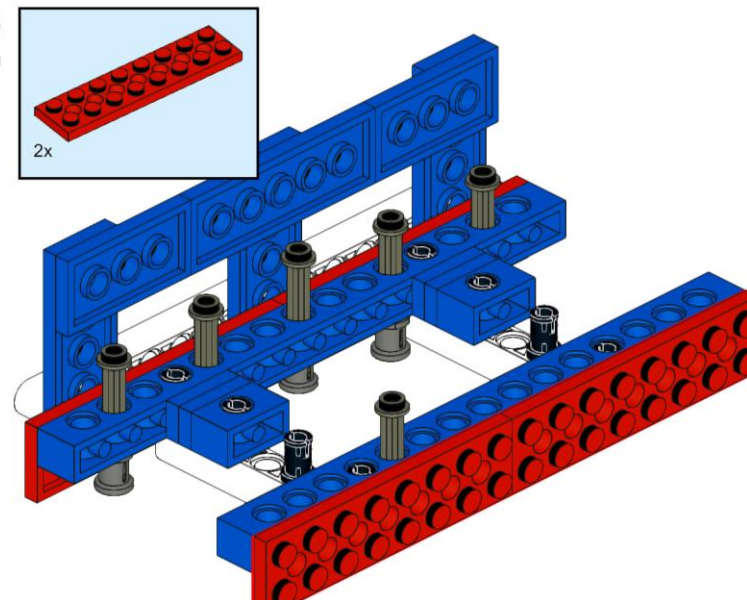


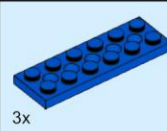


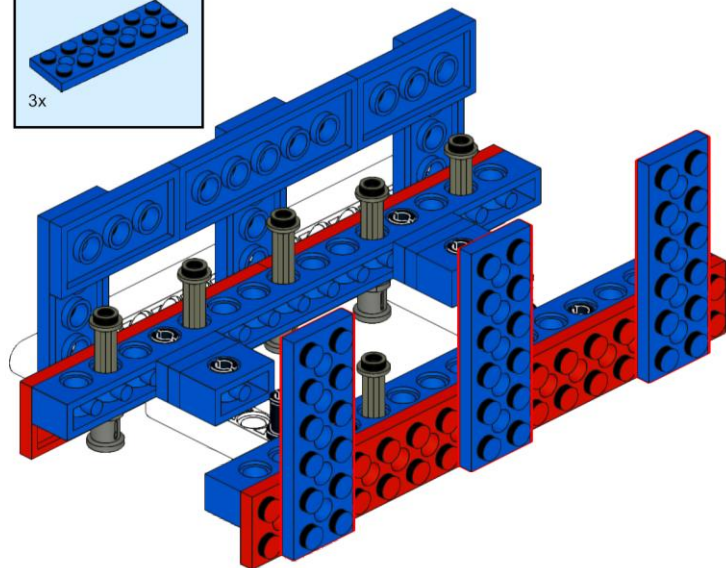
21  2x



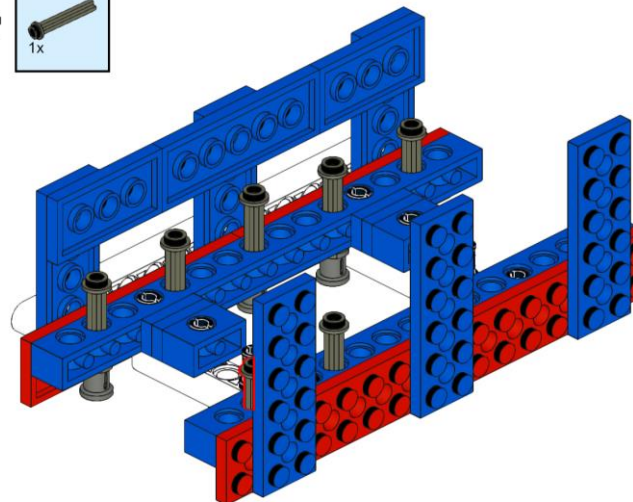
22  2x



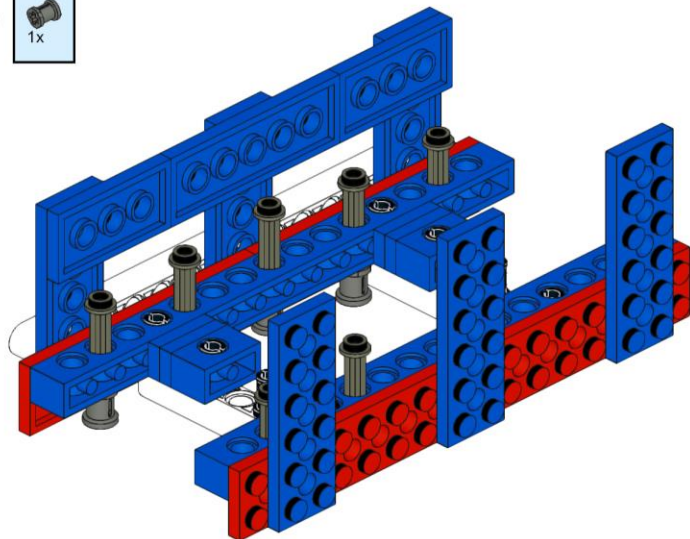
23  3x




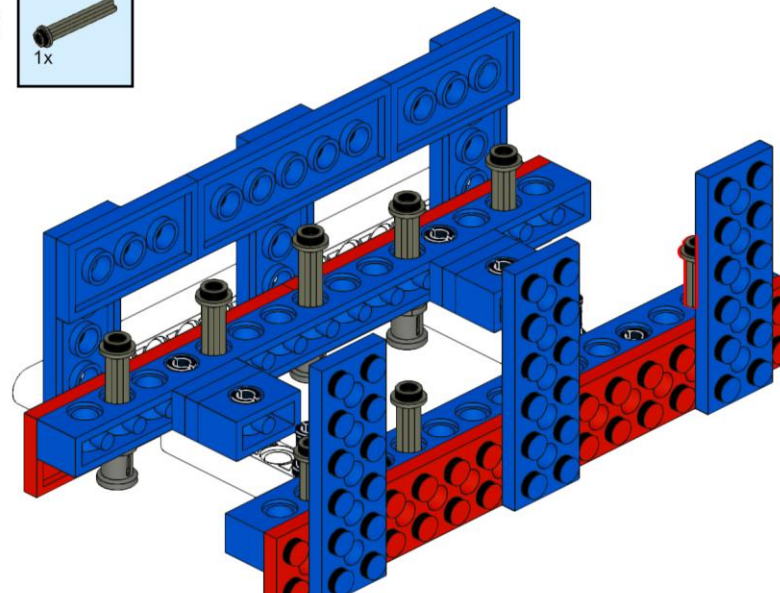
24  1x



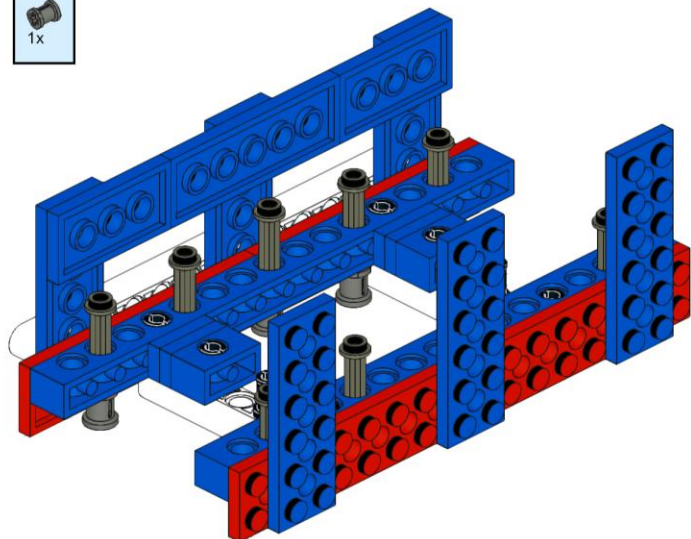
25  1x




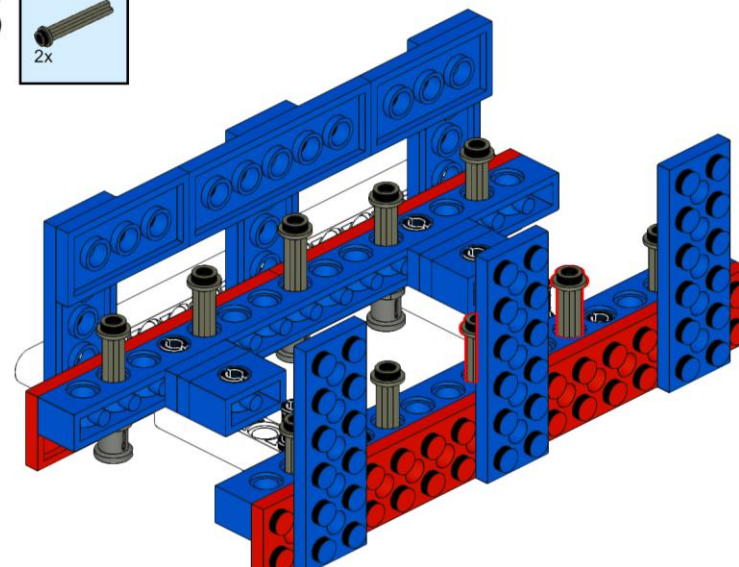
26  1x



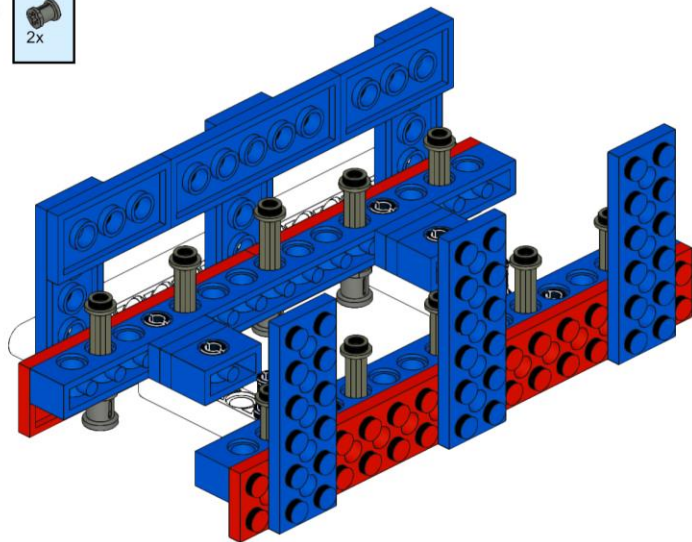
27  1x



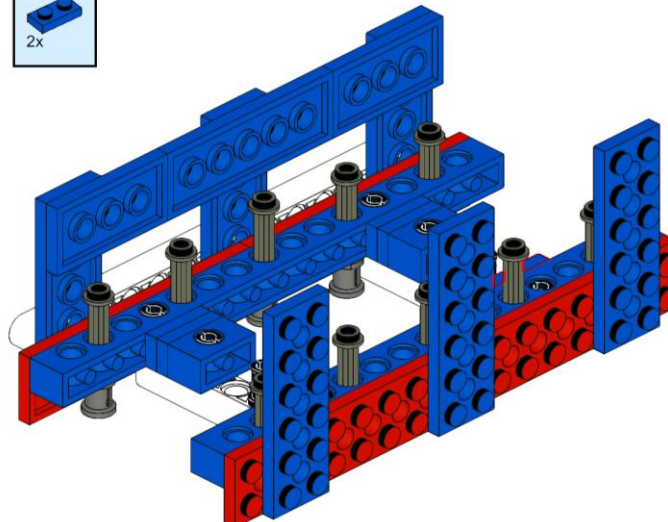
28  2x

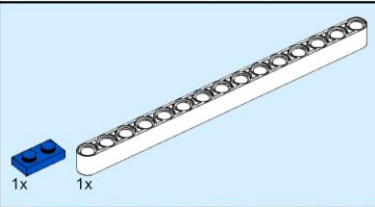


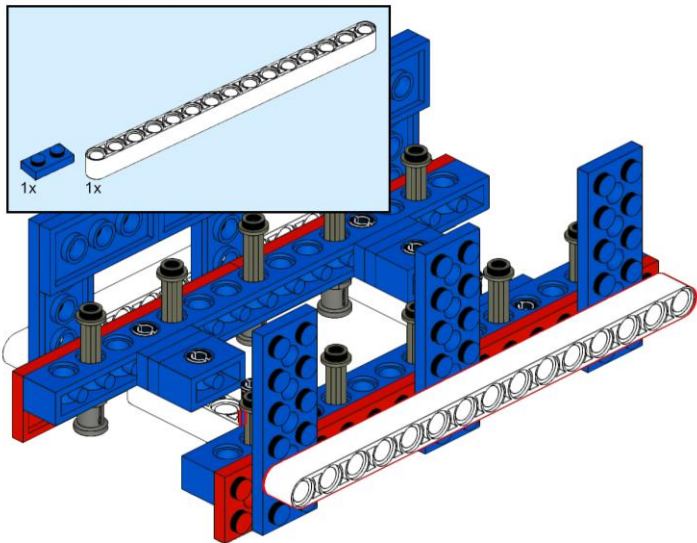
29  2x




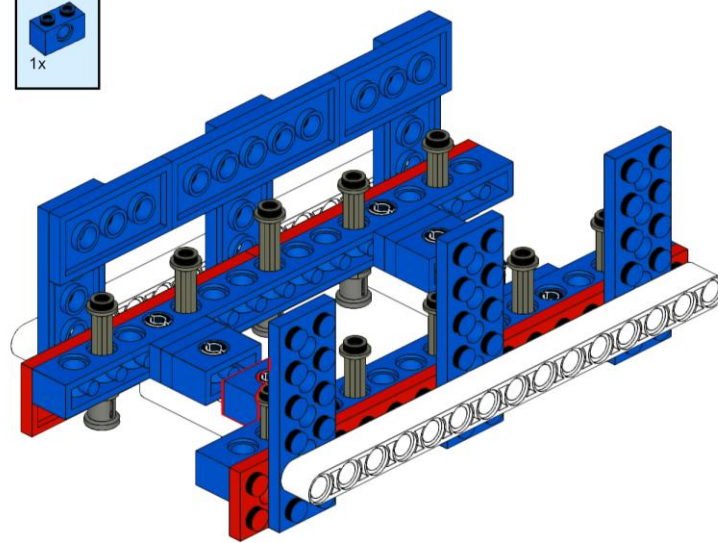
30  2x



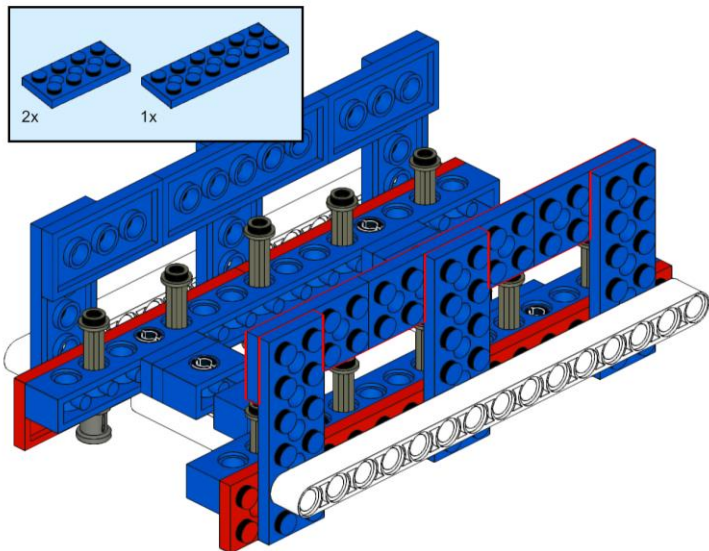
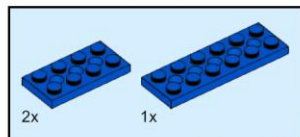
31  1x



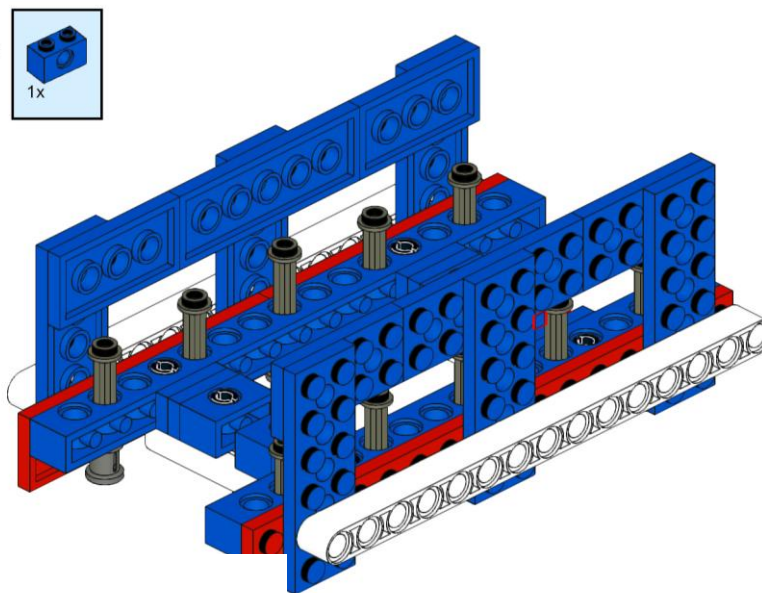
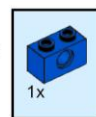
32  1x



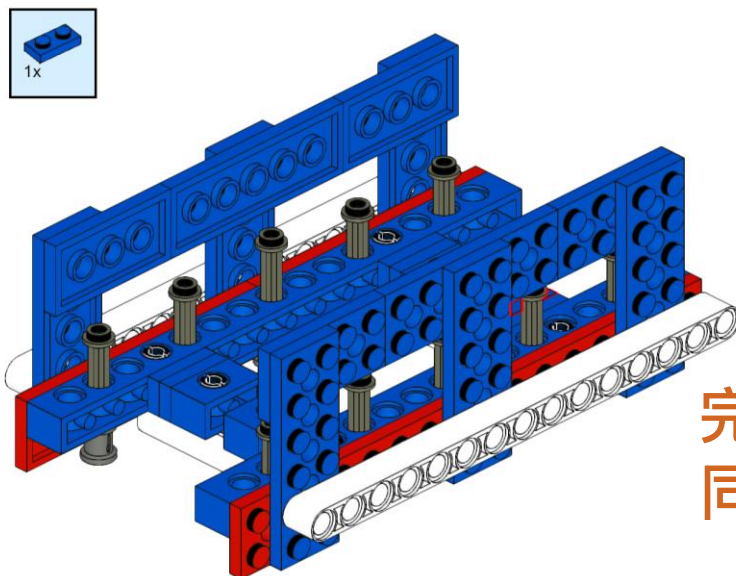
33



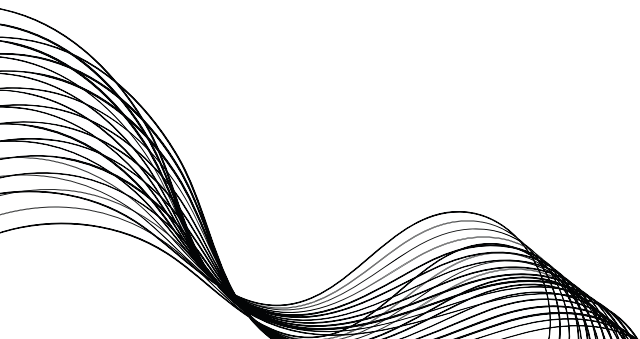
34



35

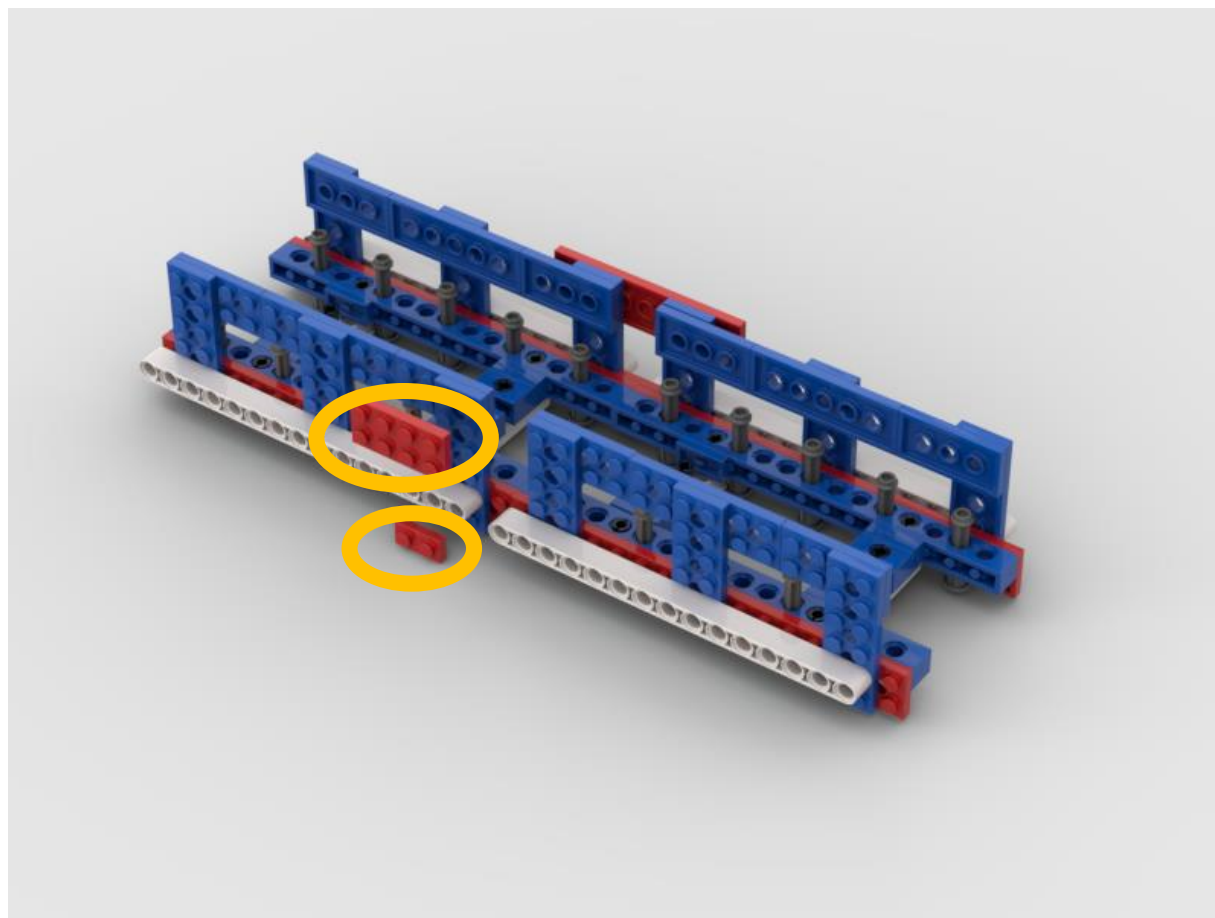


完成1套車軌！  
同樣完成几套可以接駁延長軌道



# 多軌道接駁

完成1套車軌後  
可以繼續製作幾  
套車軌並把幾套  
車軌連接起來



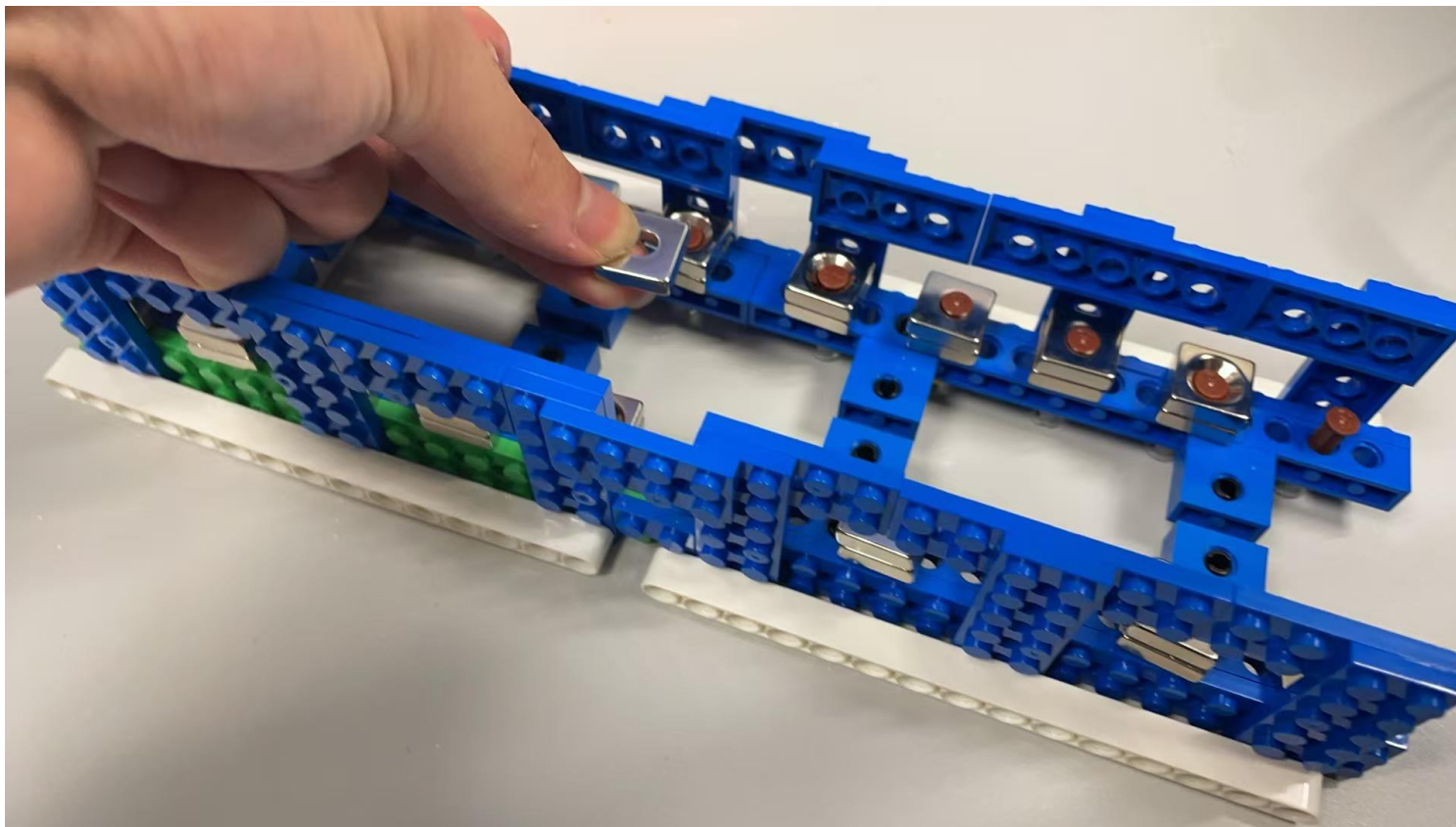
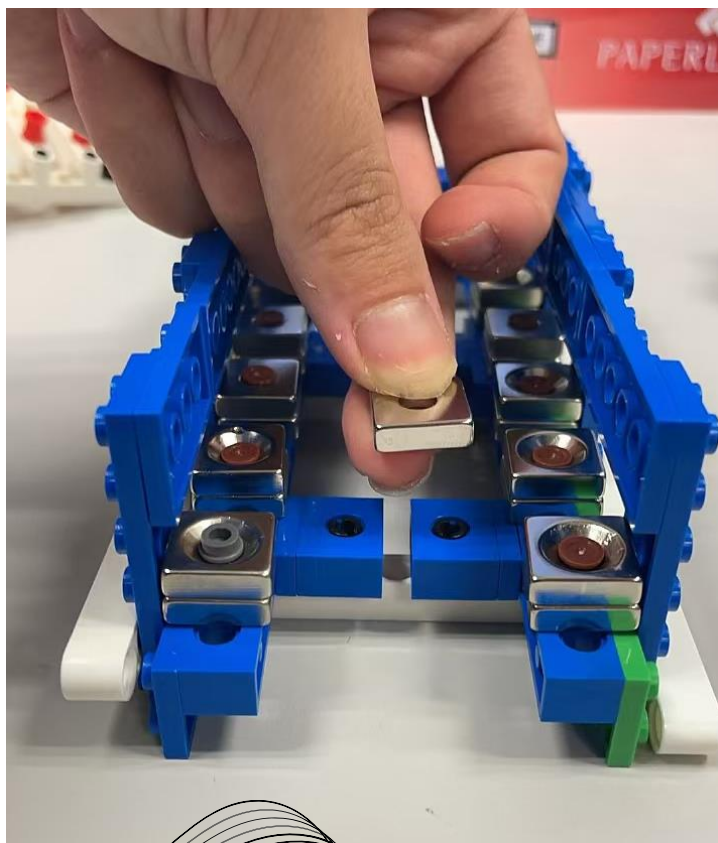
## 接駁材料：

2×4 Plate \* 1

2×1 Plate\* 1

# 極性測試

1. 拿一粒磁鐵放到路軌中間的上方，如果感受到向上的力說明此時手上磁鐵的極性方向正確，同時車身上的磁鐵極性需要跟手上磁鐵一致小車才能獲得向上的力。
2. 如果磁懸浮小車不能懸浮可能需要調整車身磁鐵的方向



# 接駁完成效果圖

