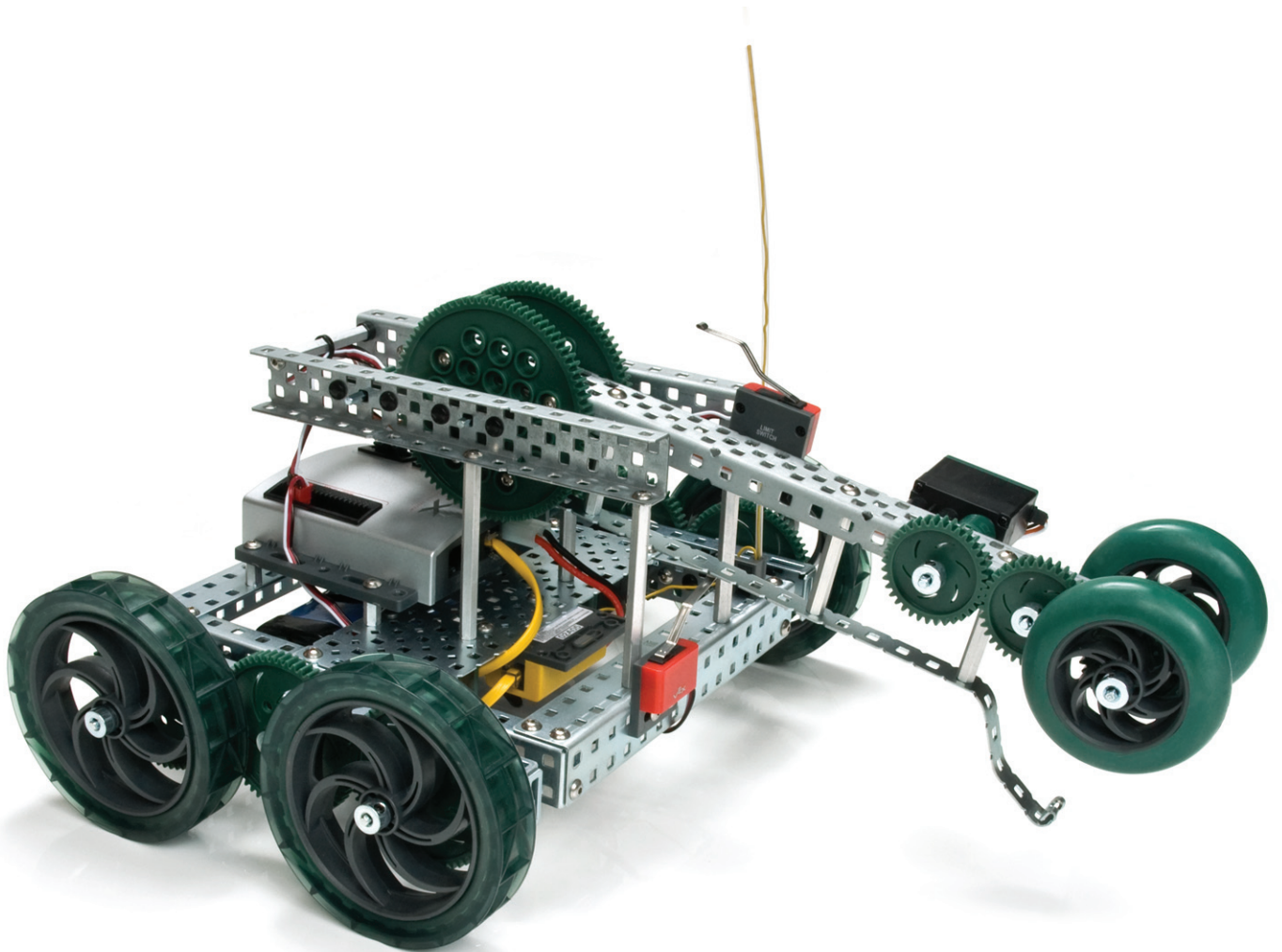


# QUICK START GUIDE

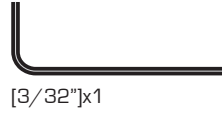
for building the

# Protobot





[5/64"]x1



[3/32"]x1

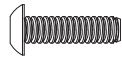


[1/4"]x1

**1**



[SS2] 1/4" MOTOR SCREW



[SS4] 1/2" MOTOR SCREW

→ ← [5/64"]

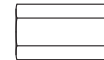
**2**



[1/4"]



[NK] 8-32 NUT KEYS

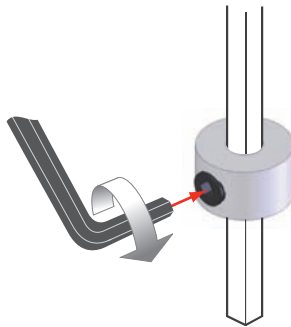


[B0.5, 1, 2, 3]

**3**



→ ← [5/64"]



[COL] COLLAR

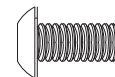
**4**



→ ← [3/32"]

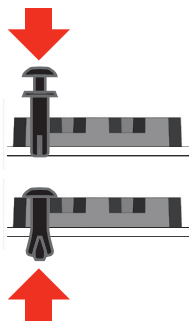


[S2] 1/4" SCREW

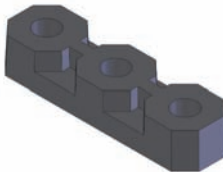


[S3] 3/8" SCREW

**5**

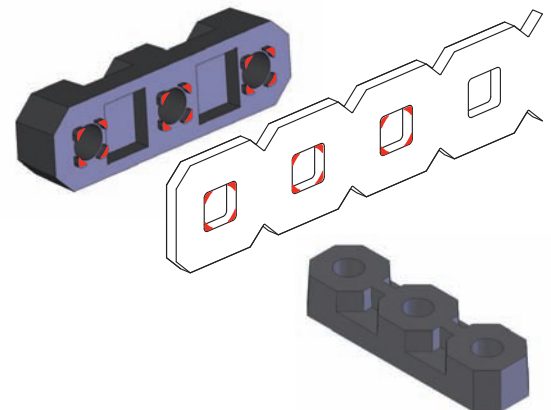


[BR] POP RIVETS

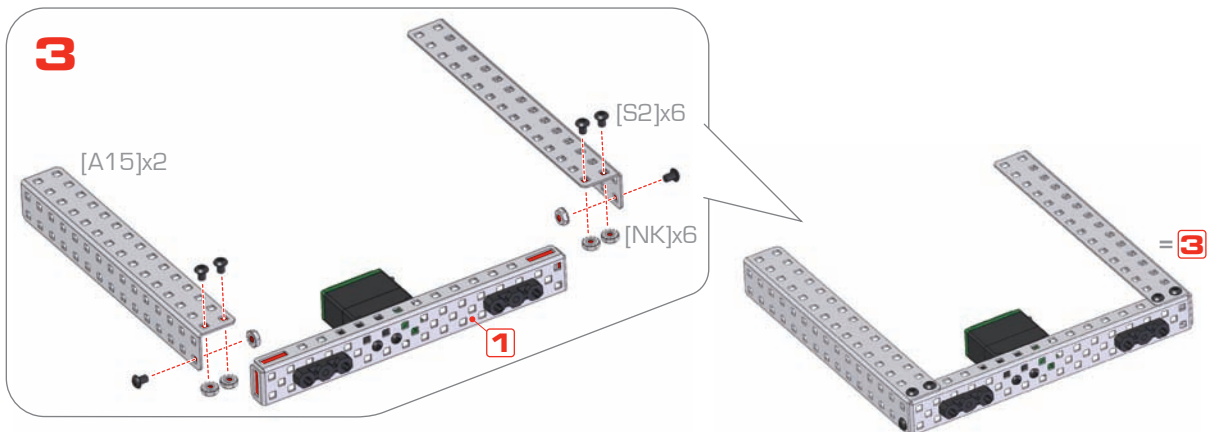
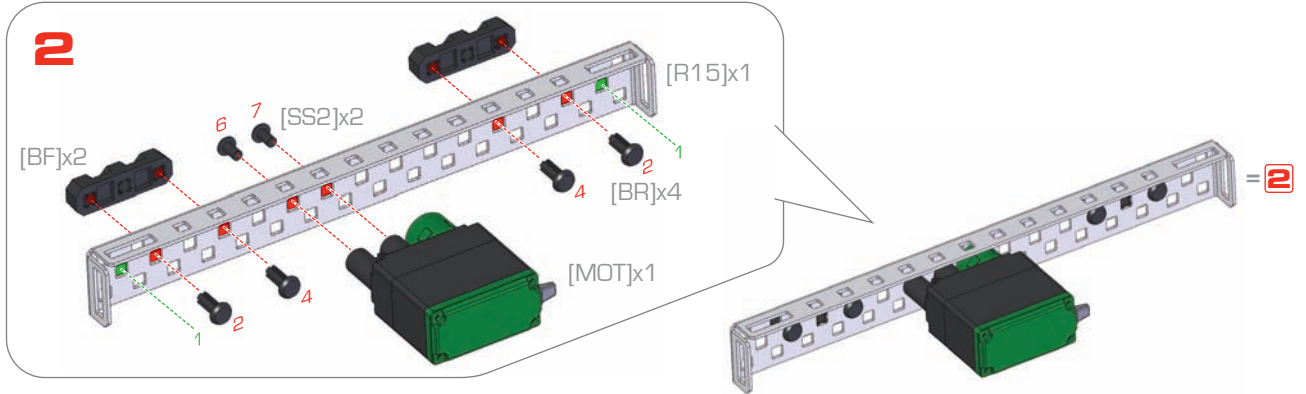
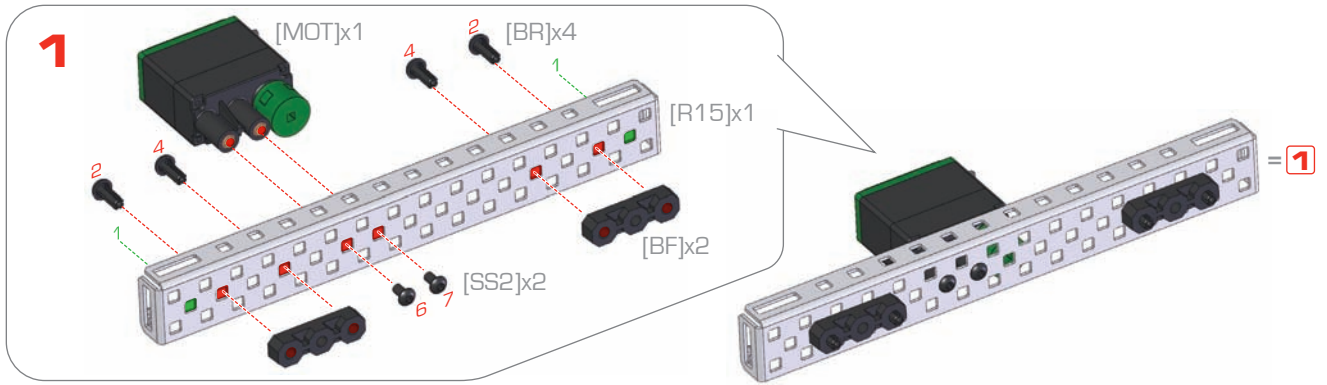


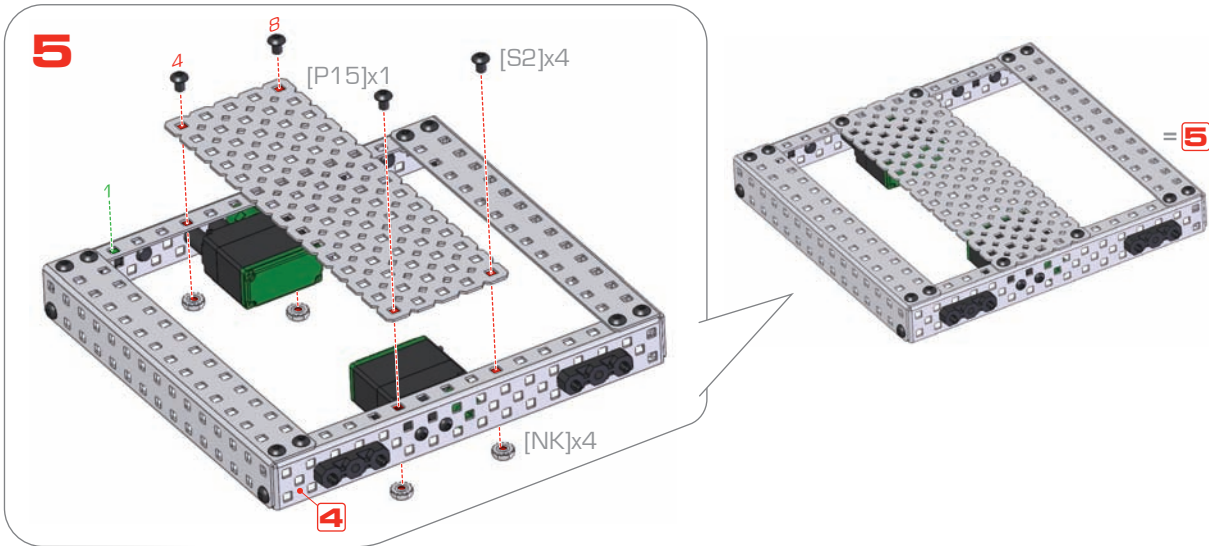
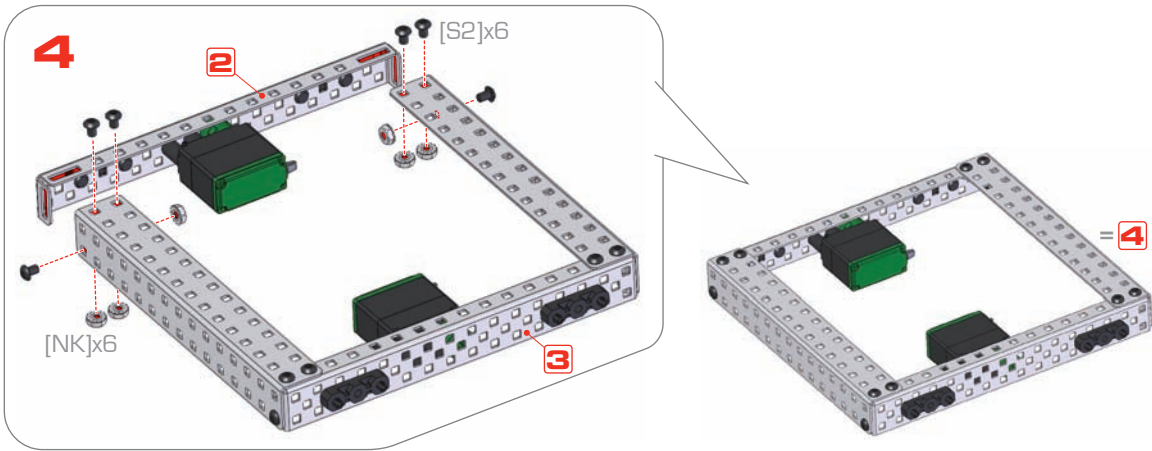
[BF] BEARING FLAT

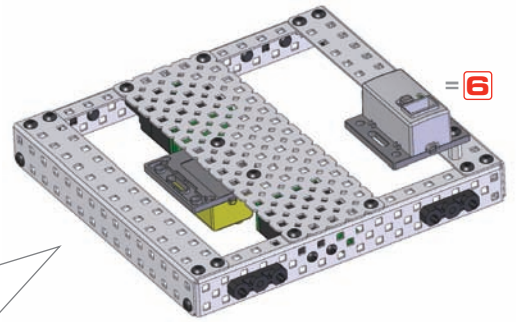
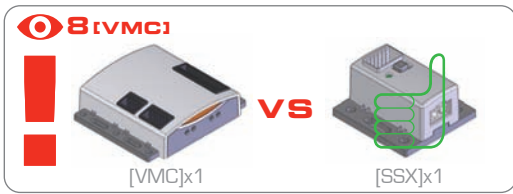
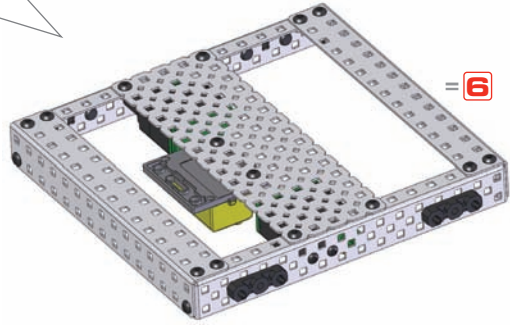
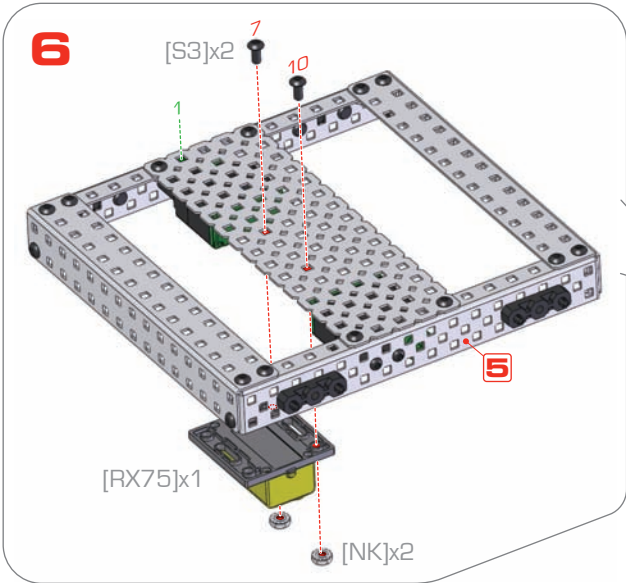
**6**



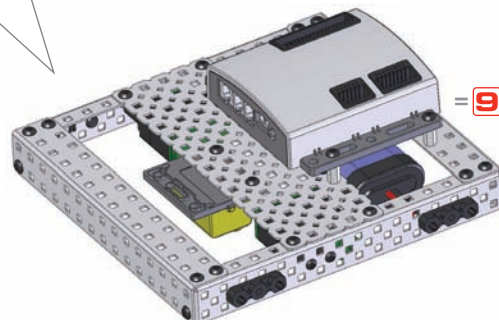
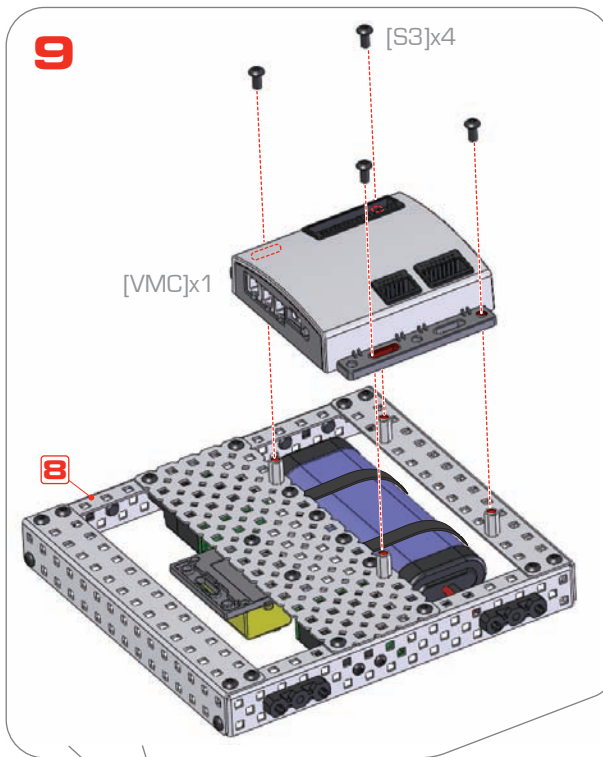
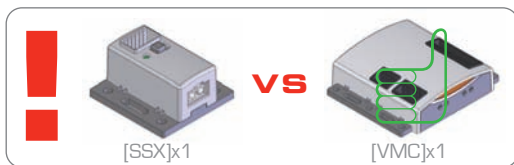
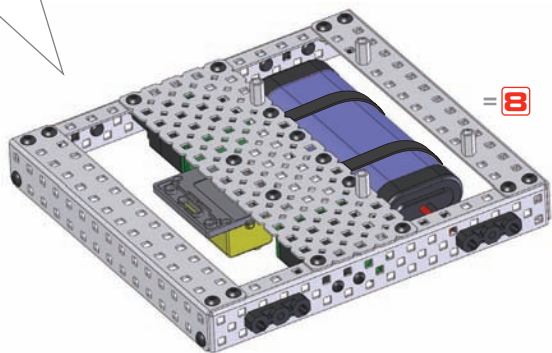
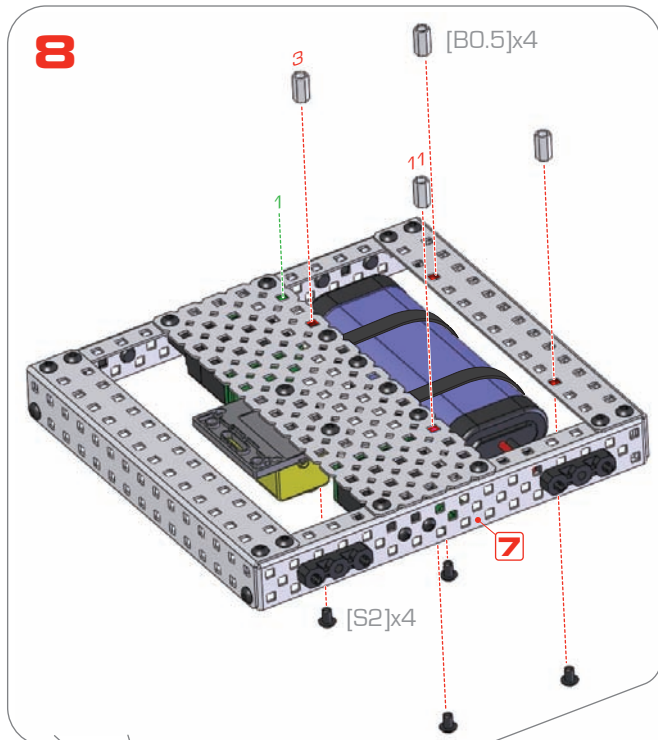
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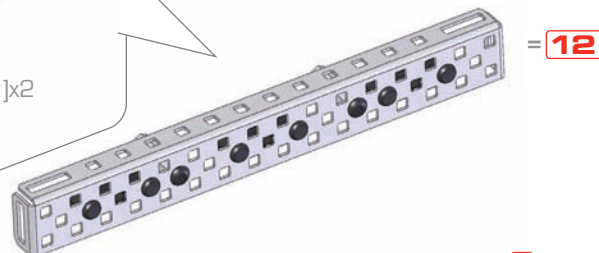
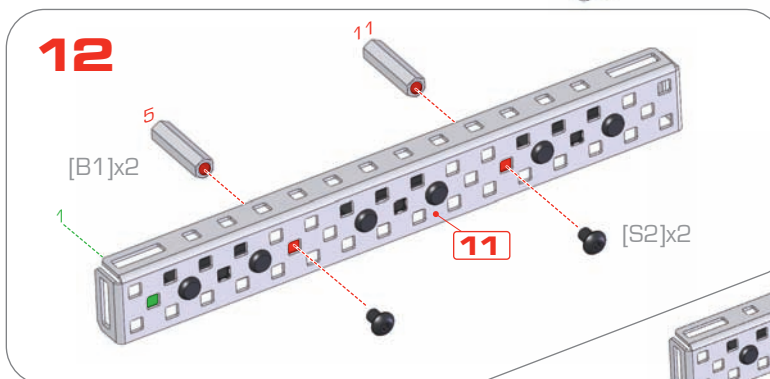
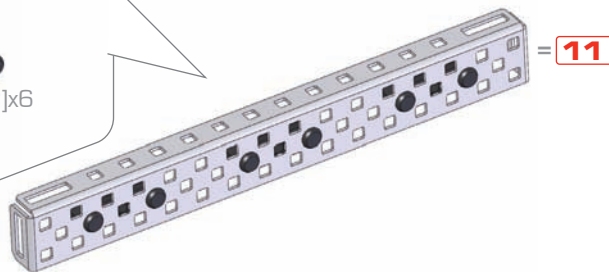
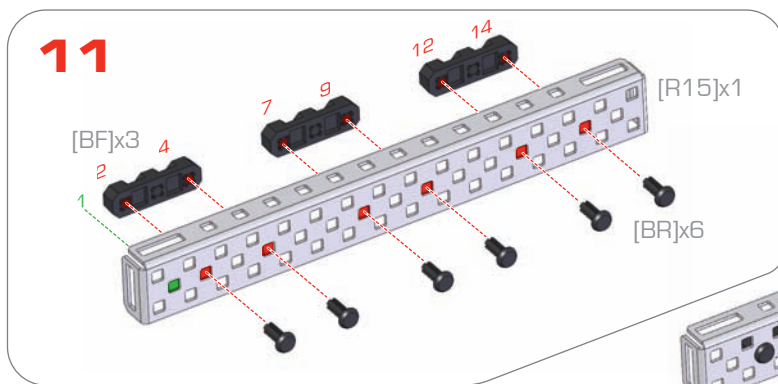
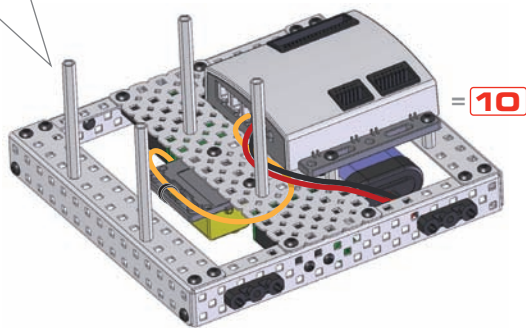
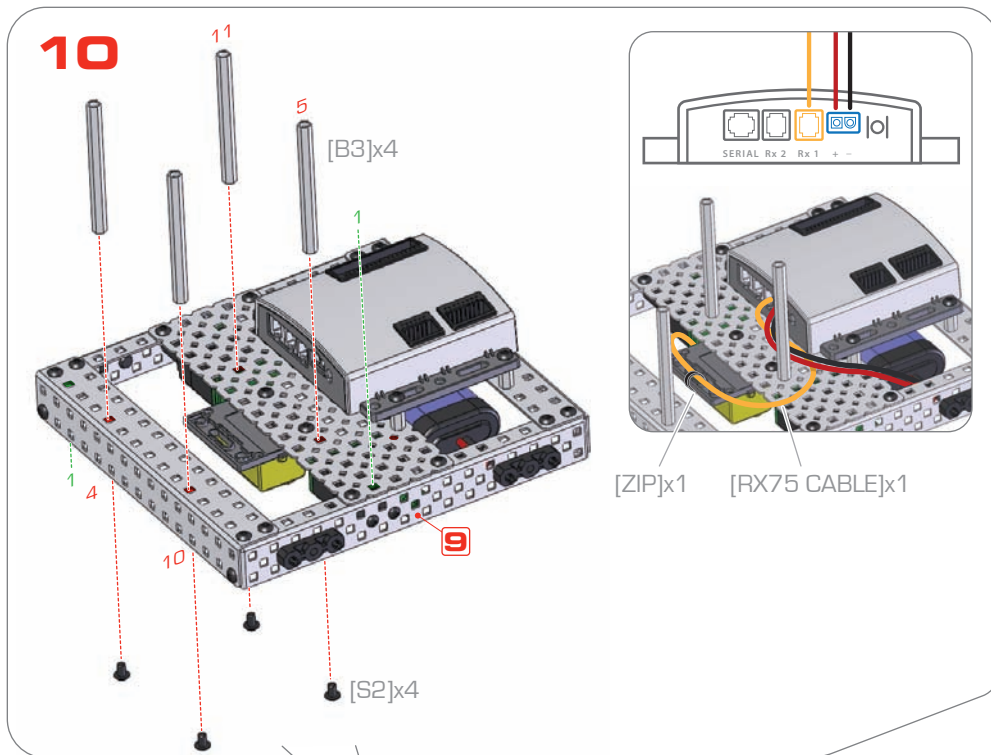




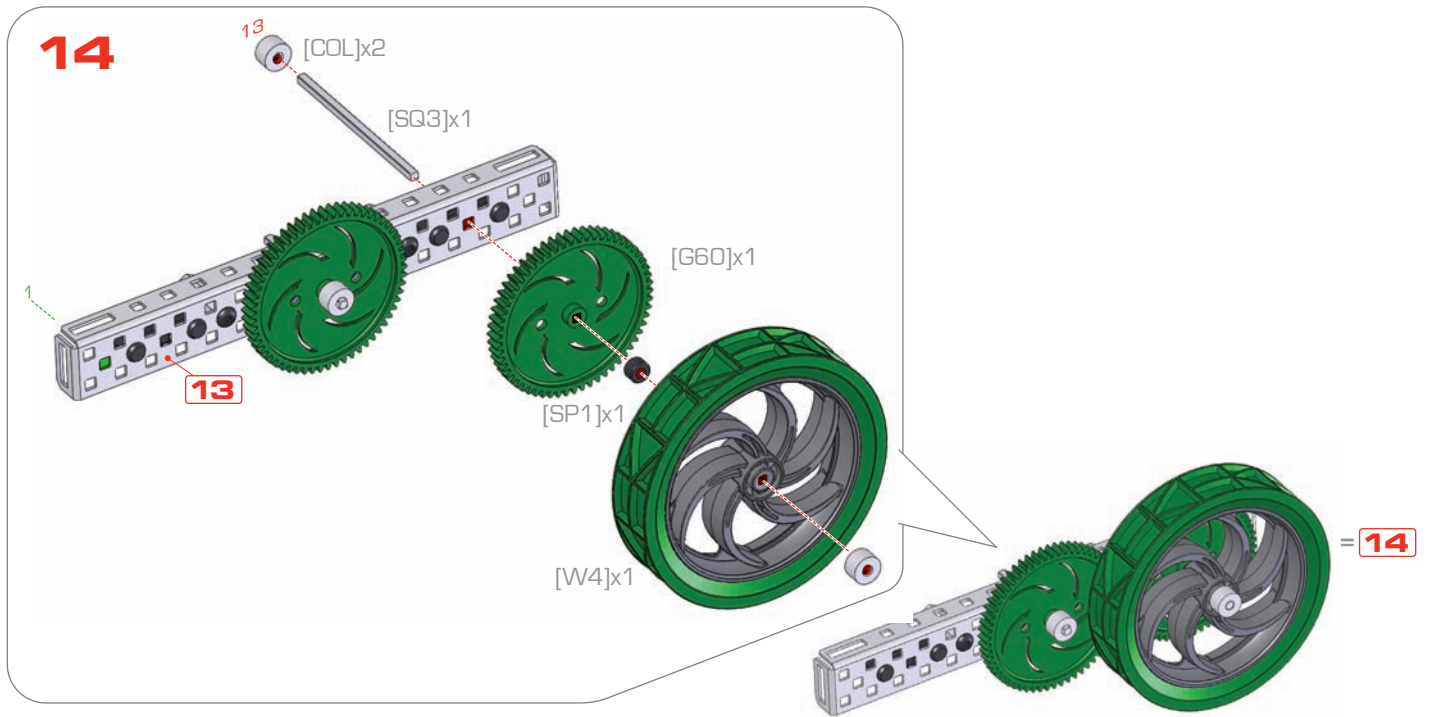
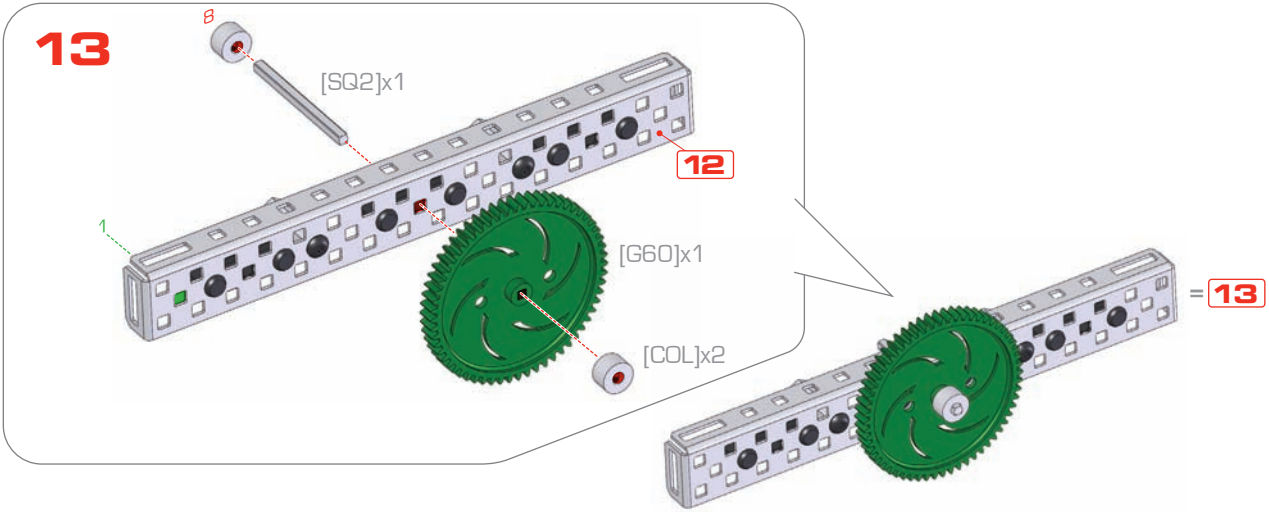




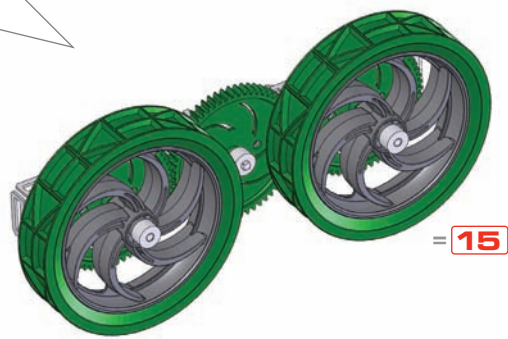
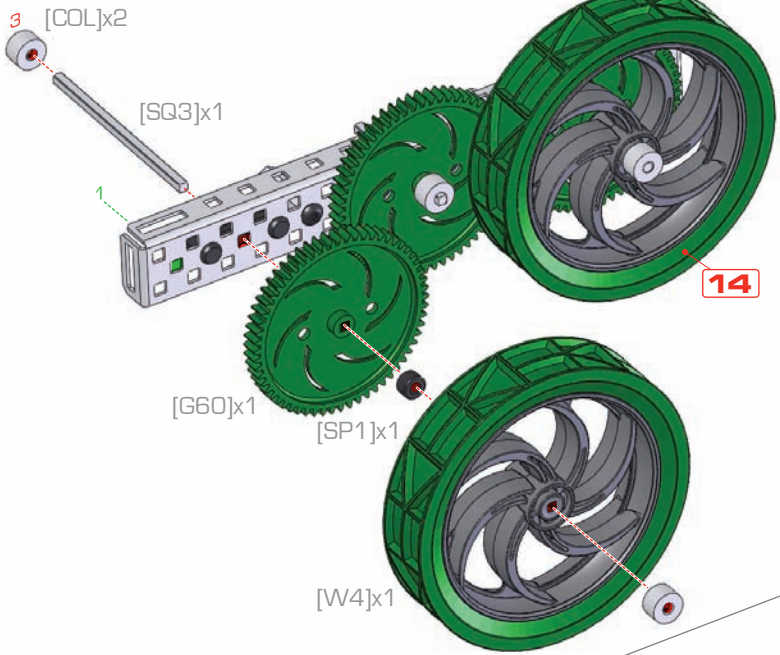




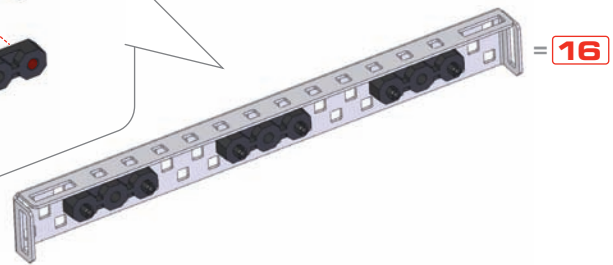
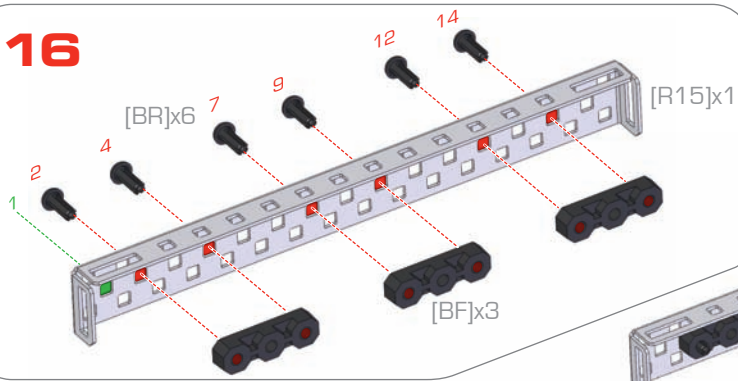




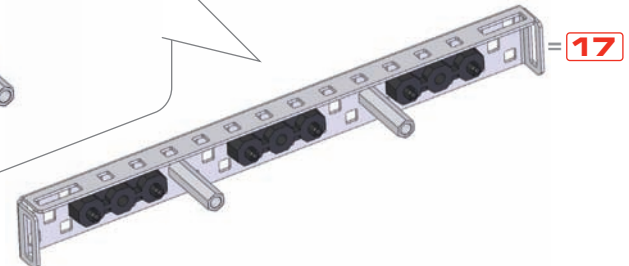
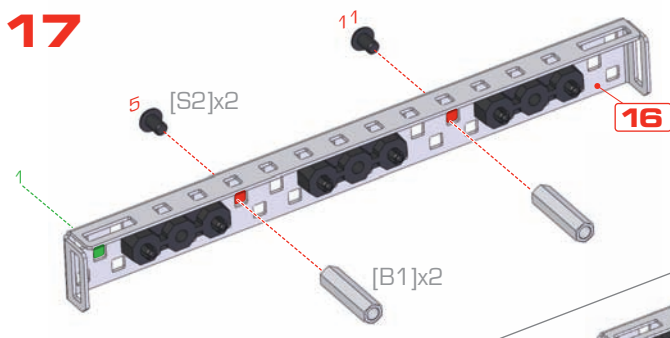
# 15

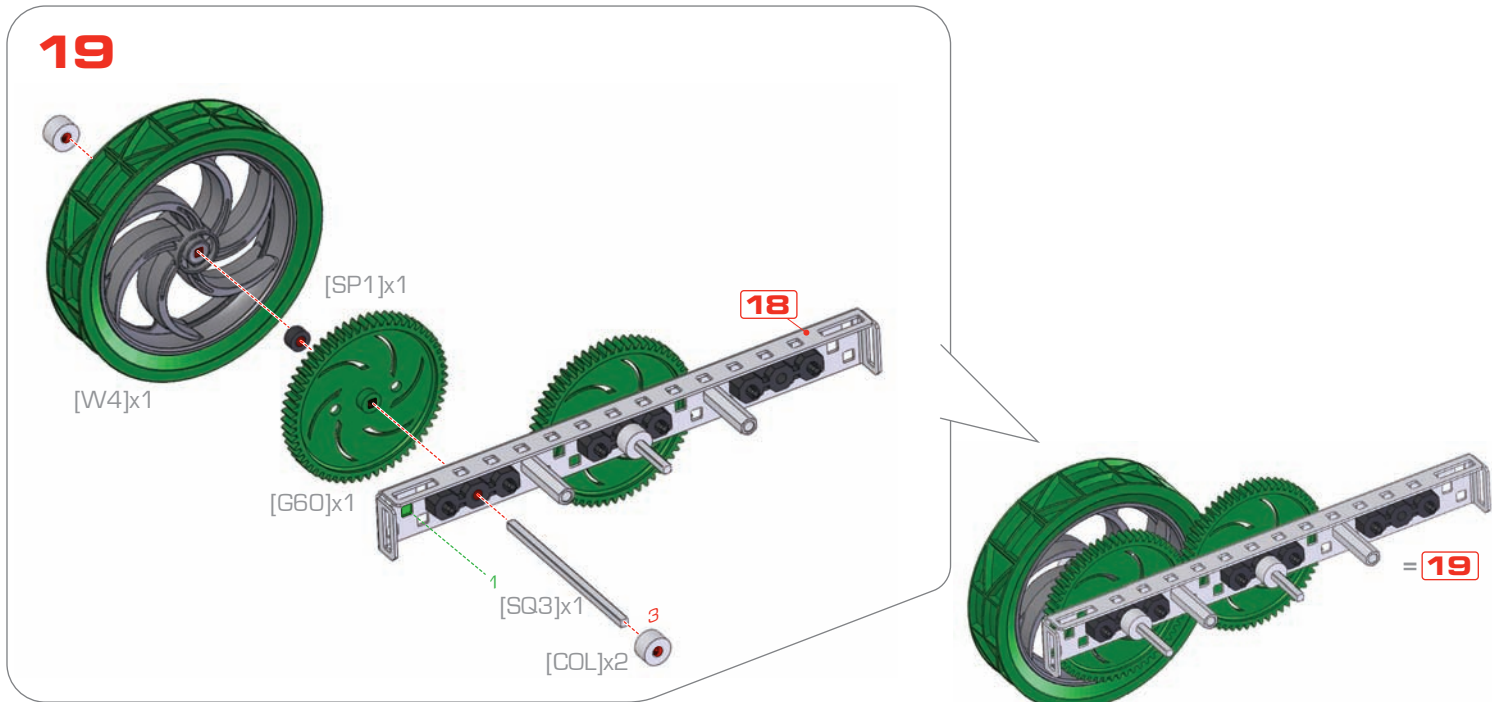
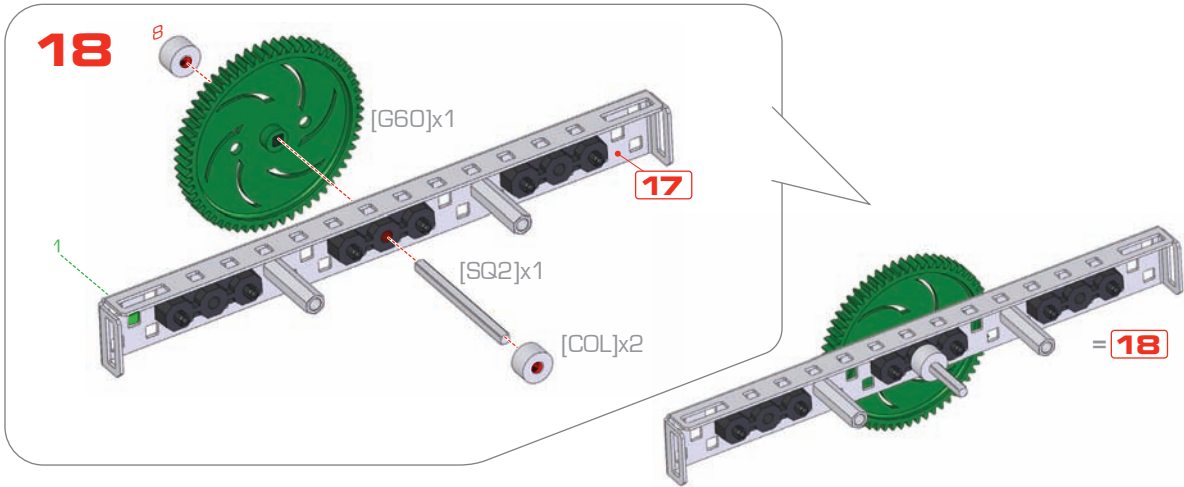


# 16



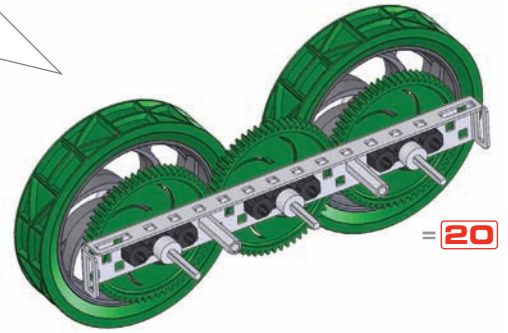
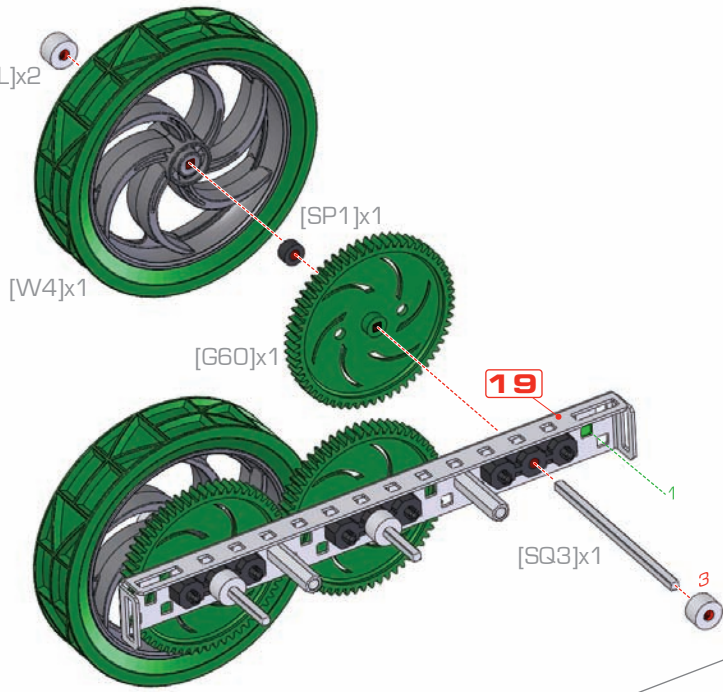
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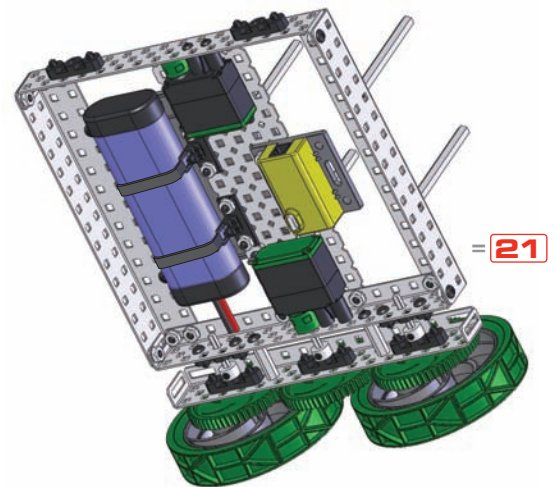
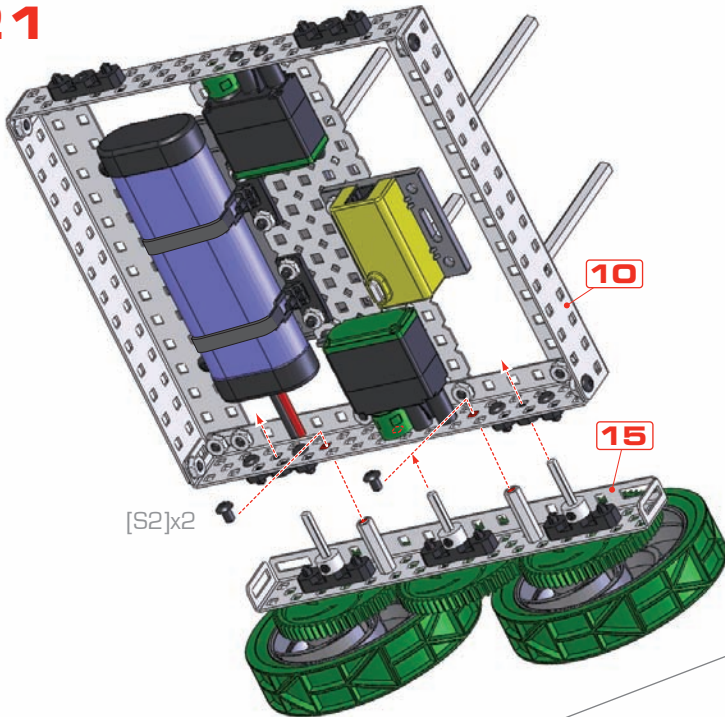


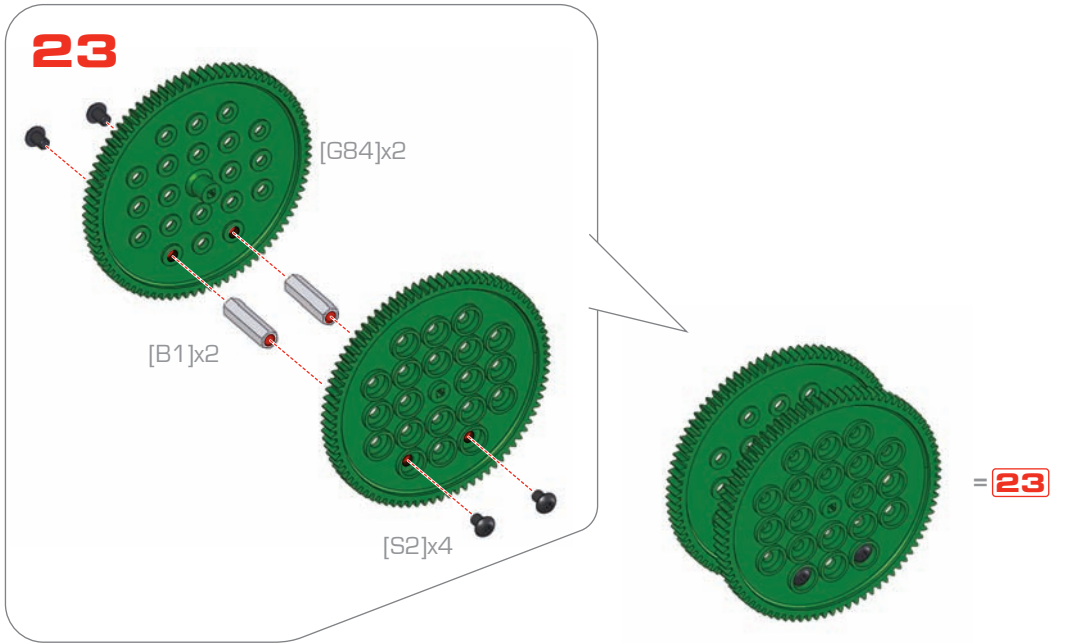
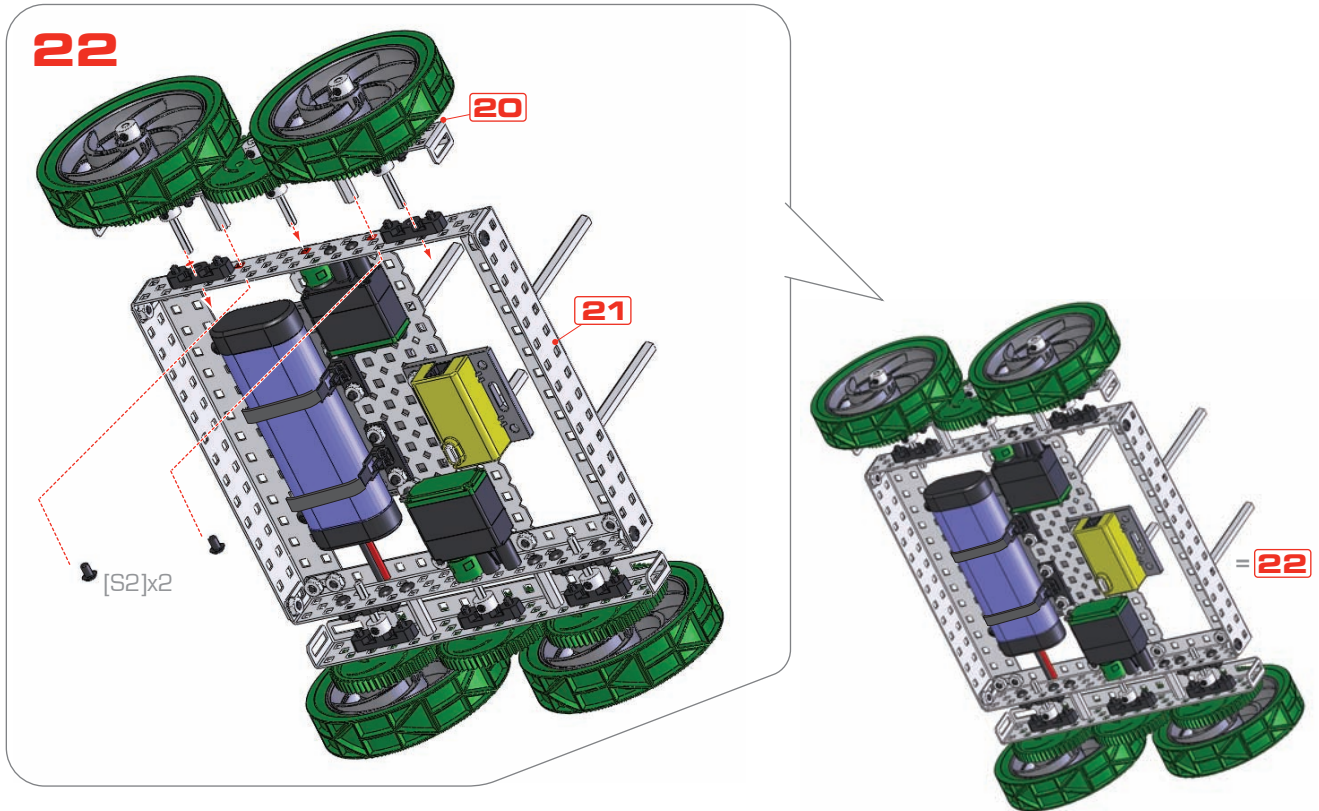
# 20

[COL]x2

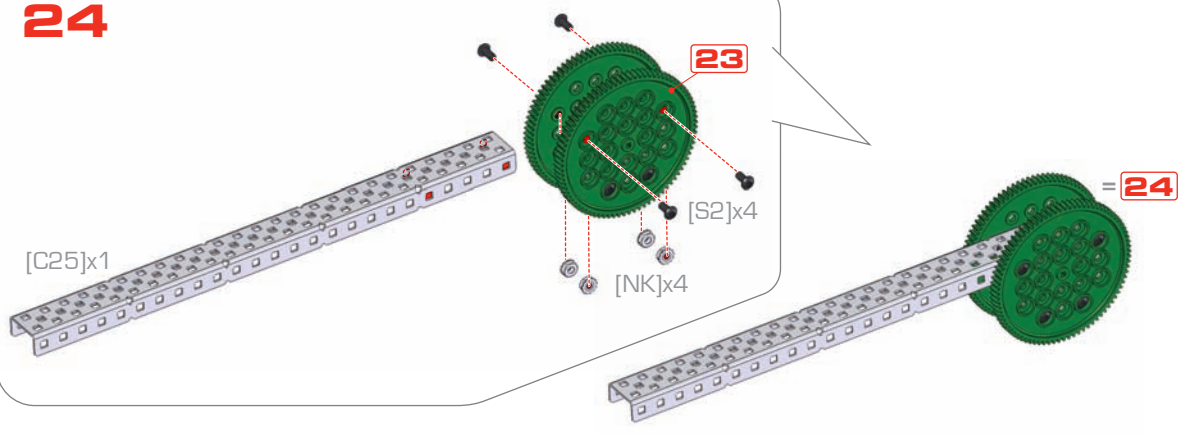


# 21

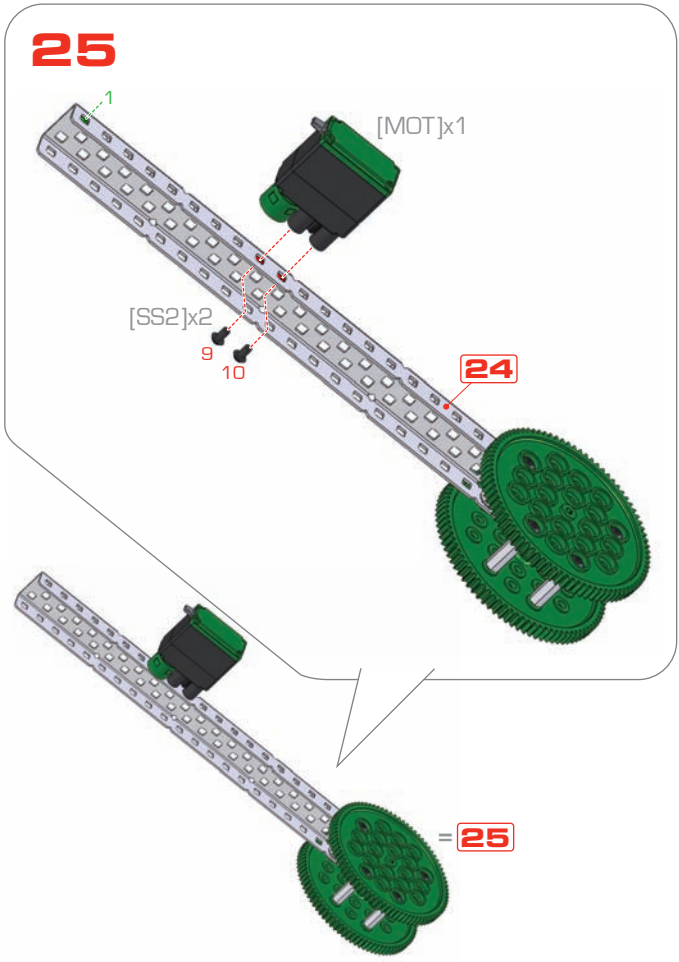


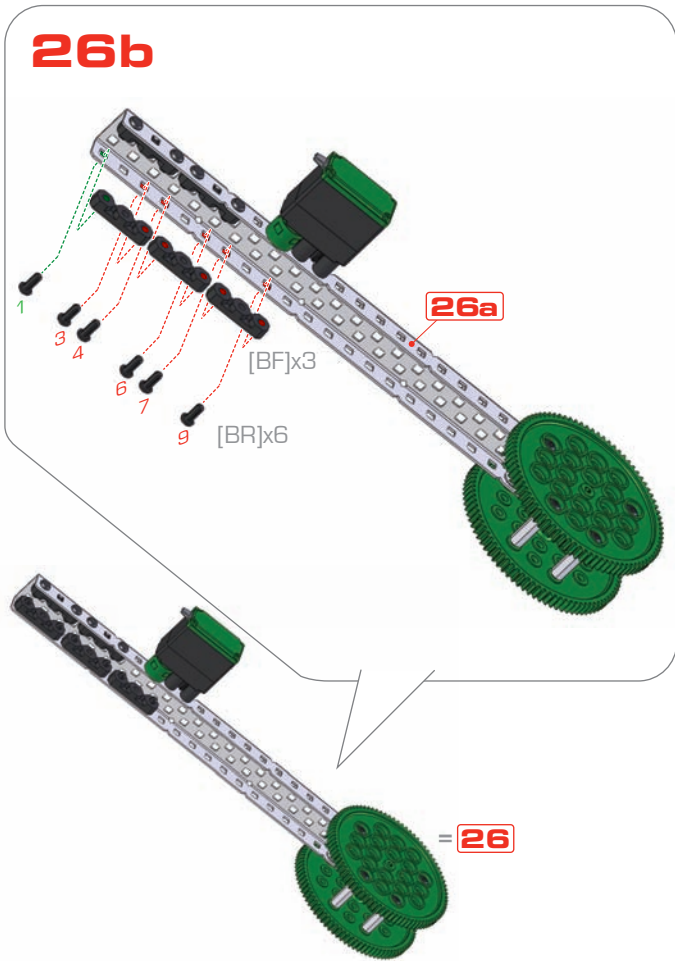
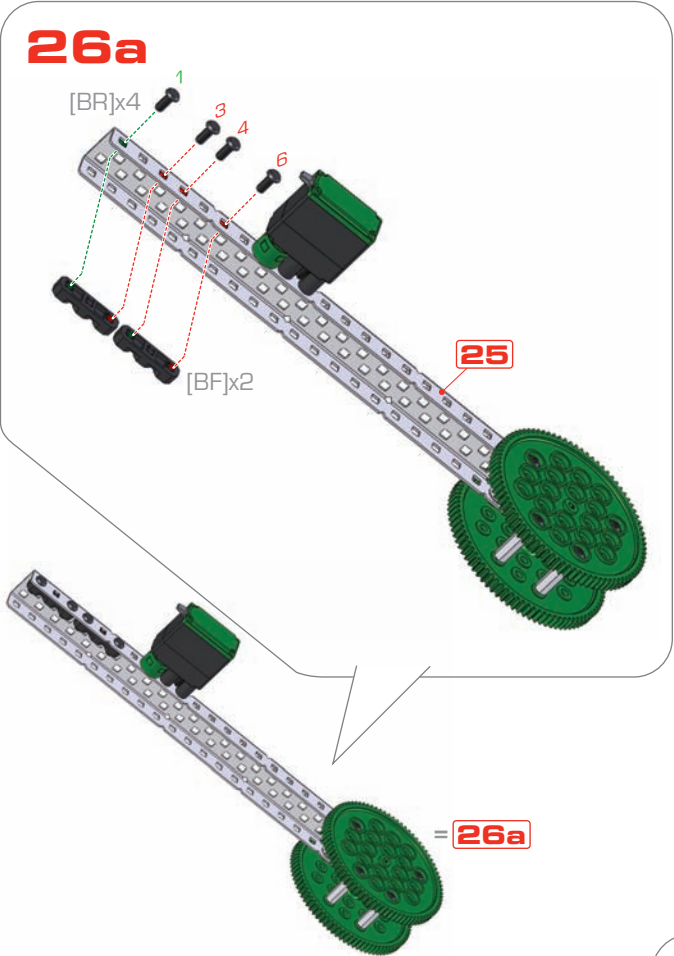


**24**

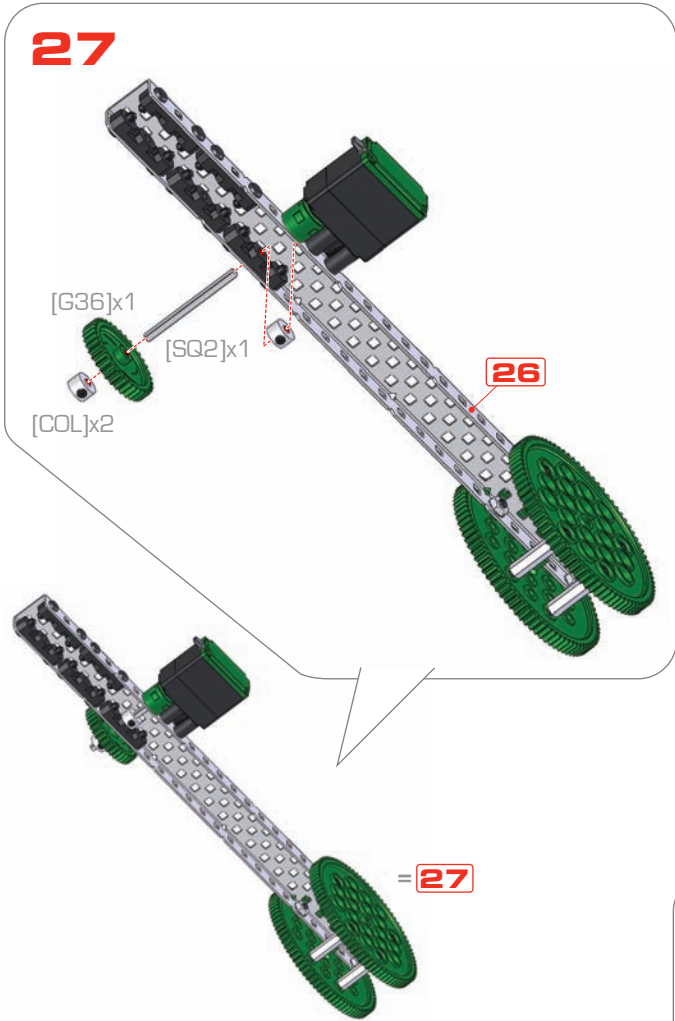


**25**

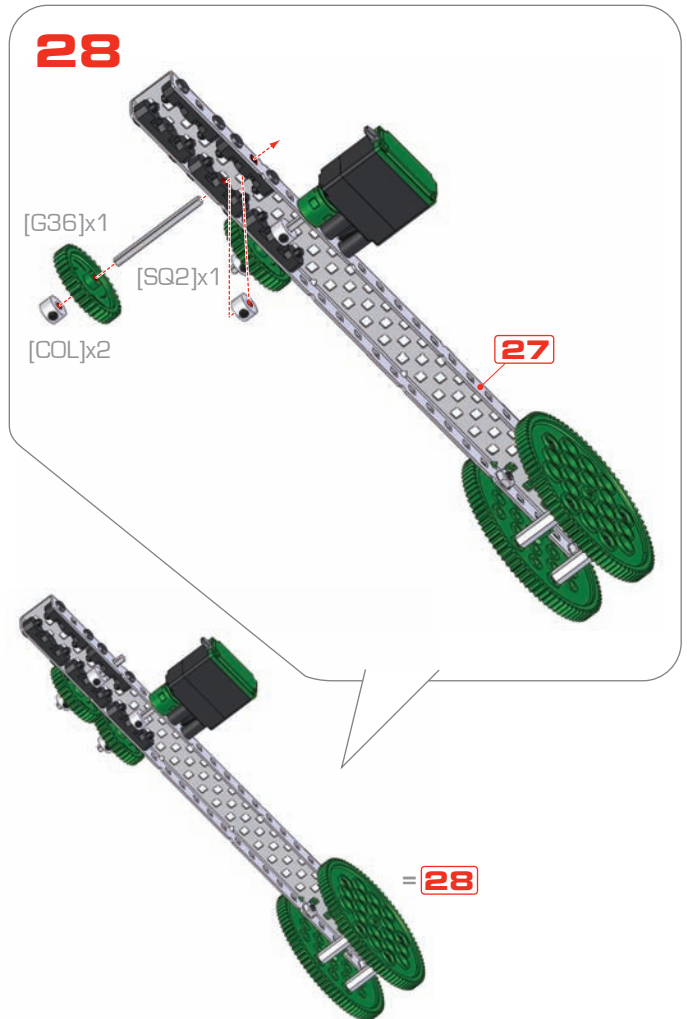




**27**

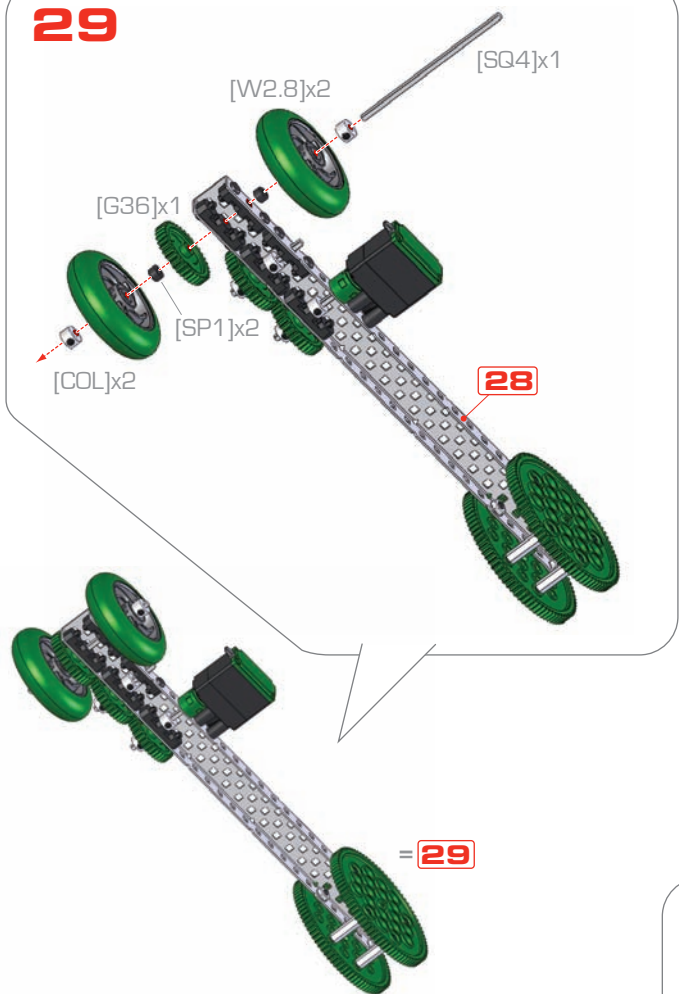


**28**

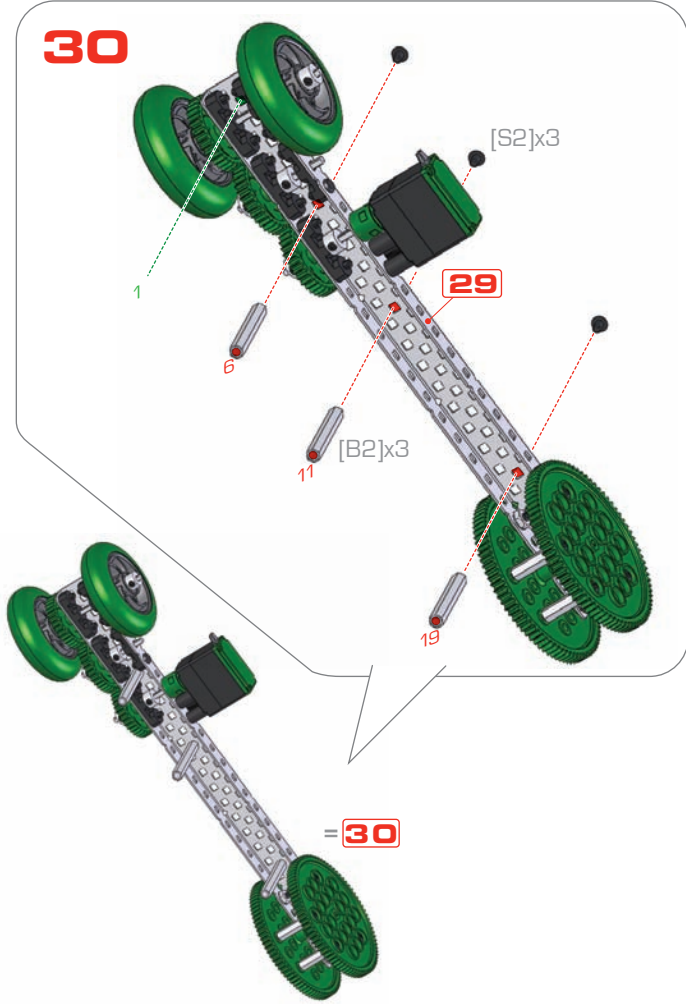




**29**

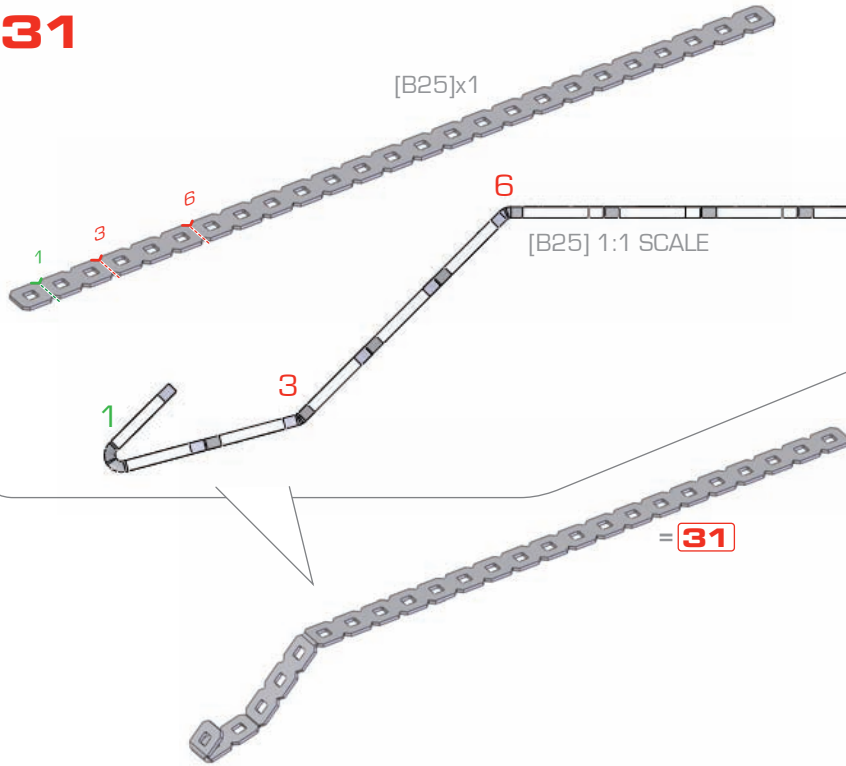


**30**

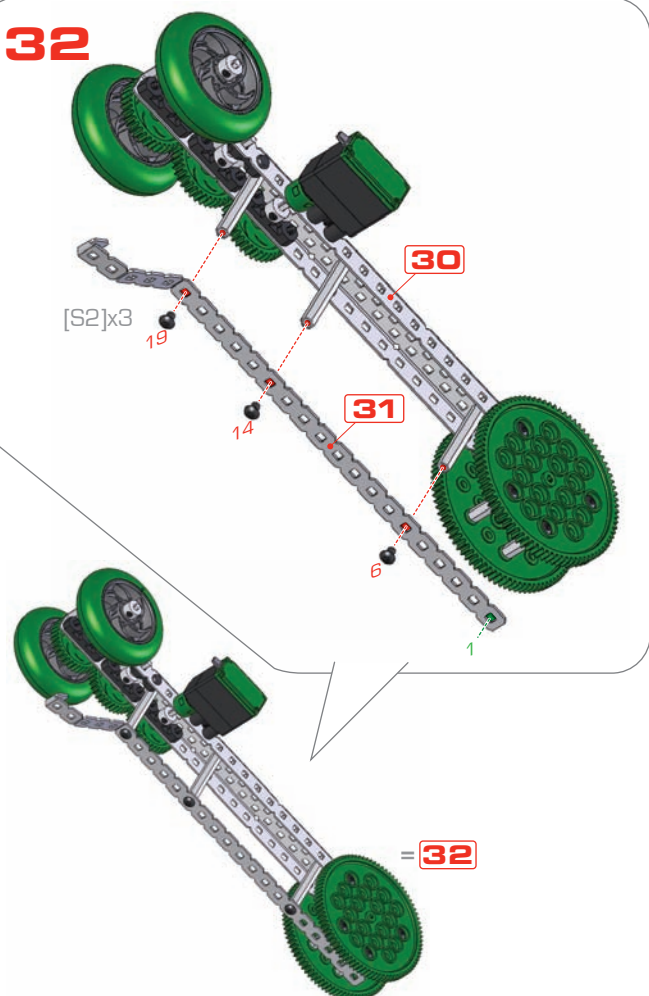


**31**

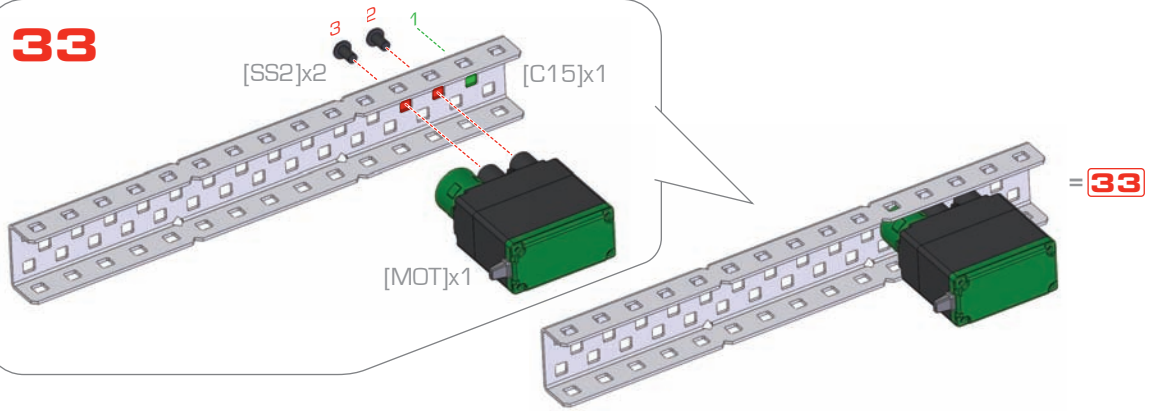
[B25]x1



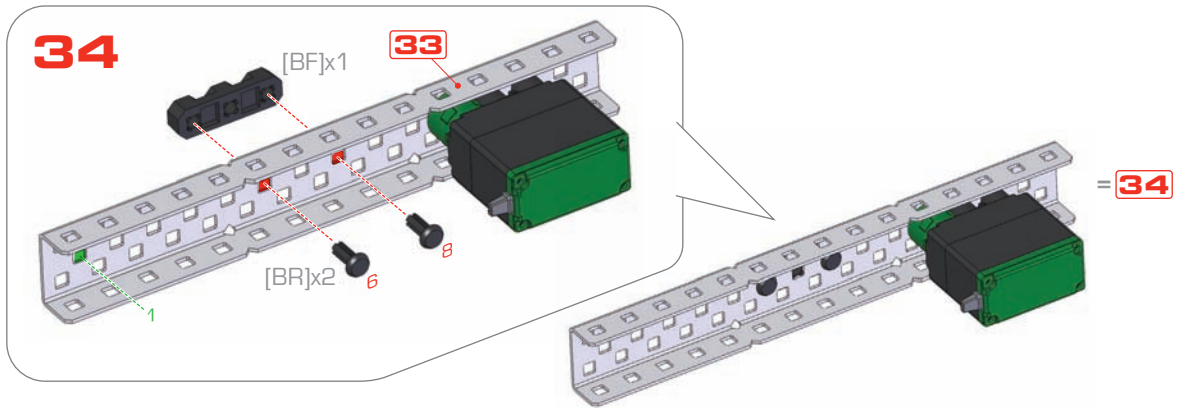
**32**



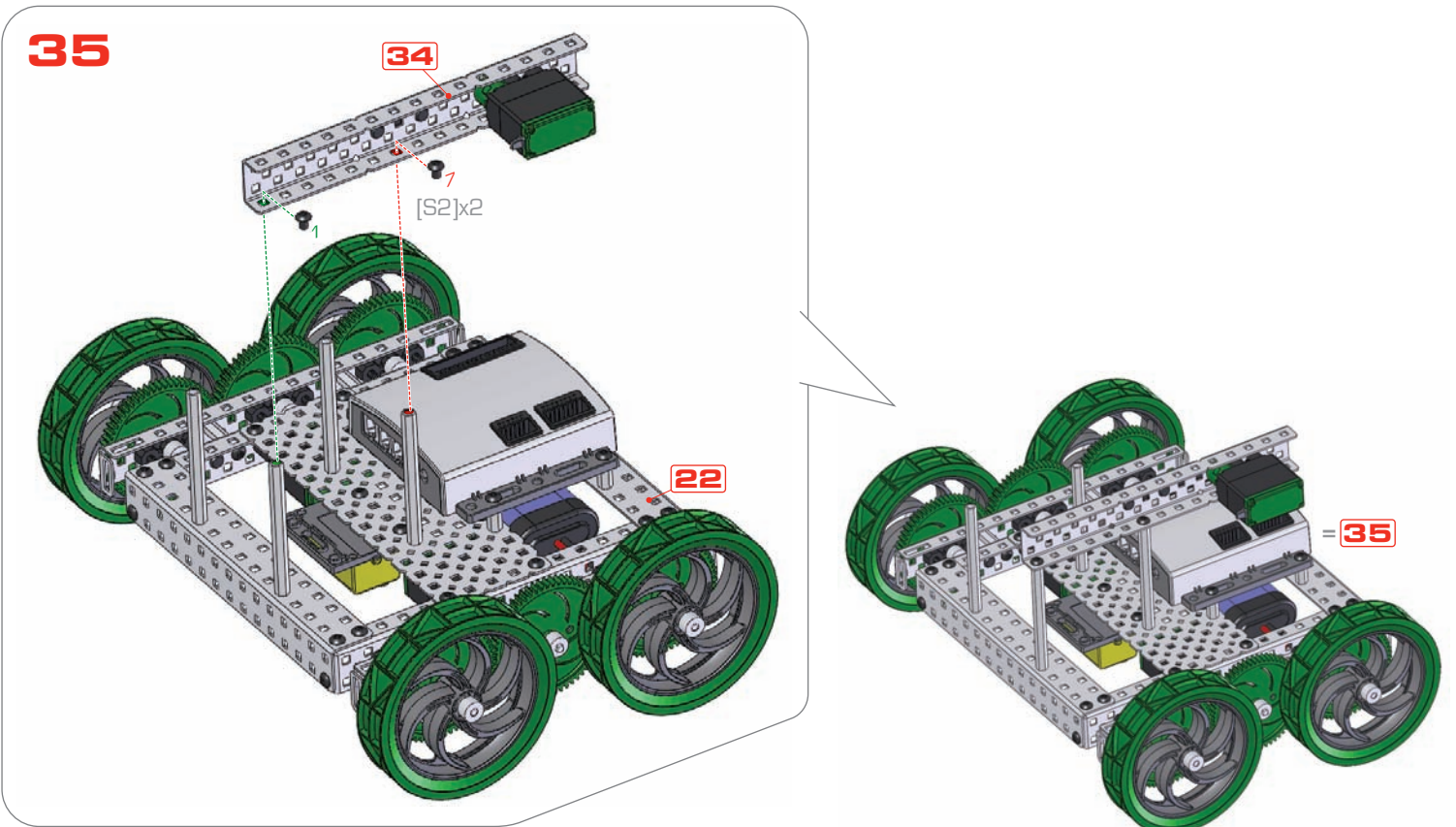
**33**



**34**



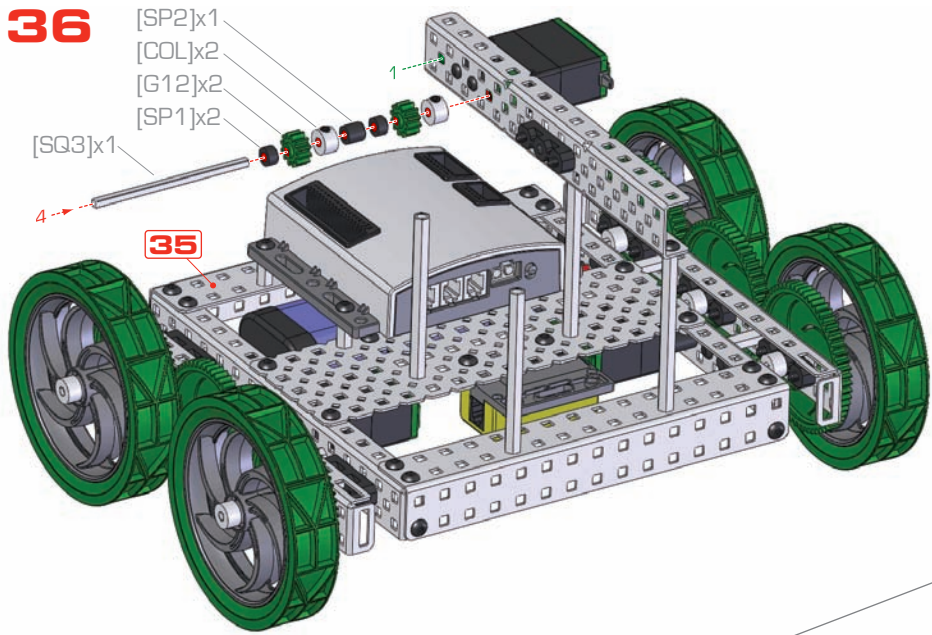
**35**



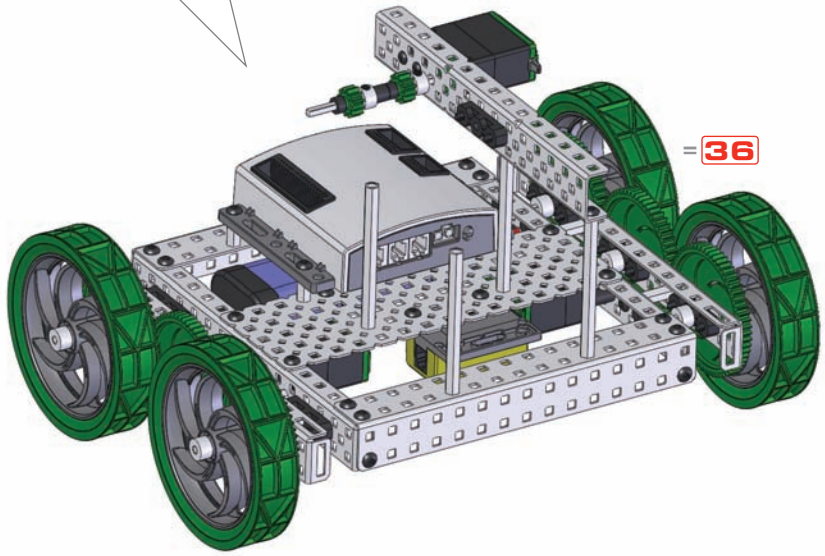
**36**

- [SP2]x1
- [COL]x2
- [G12]x2
- [SP1]x2

[SQ3]x1



**35**



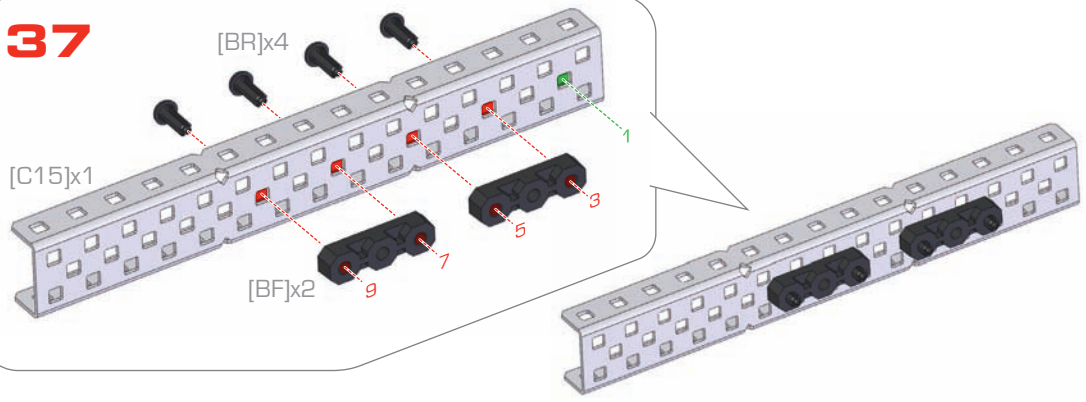
**36**

**37**

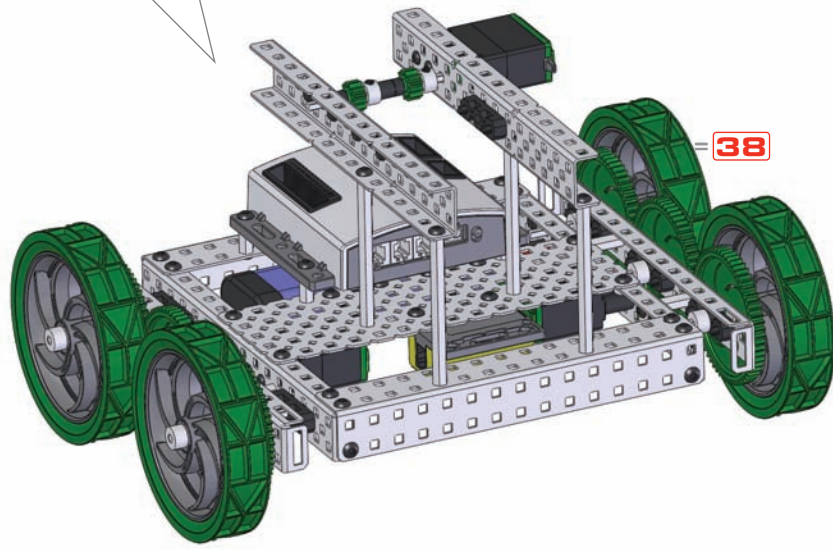
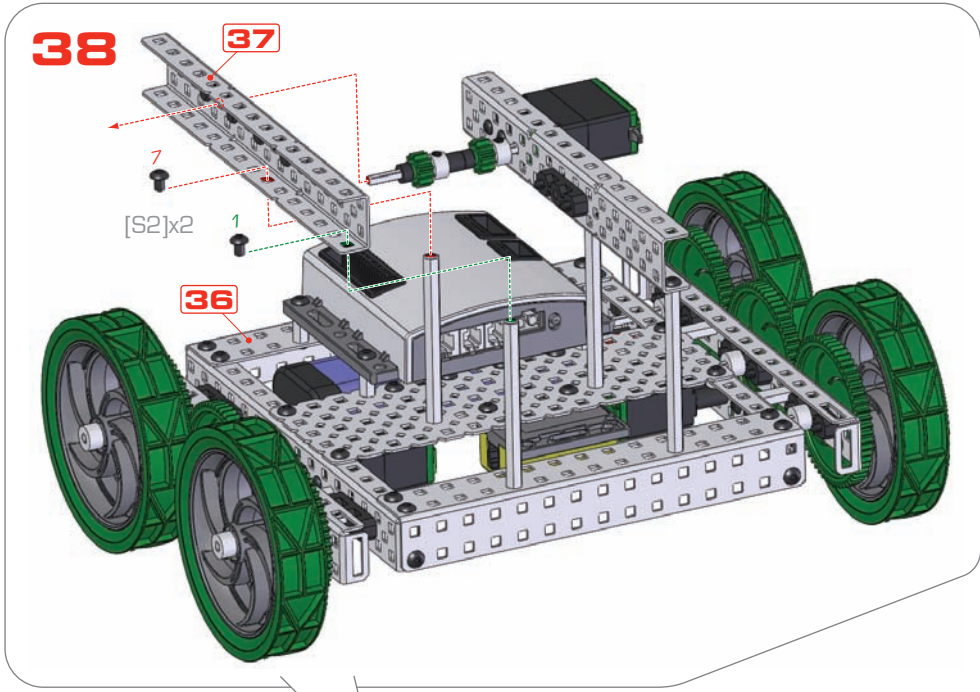
[BR]x4

[C15]x1

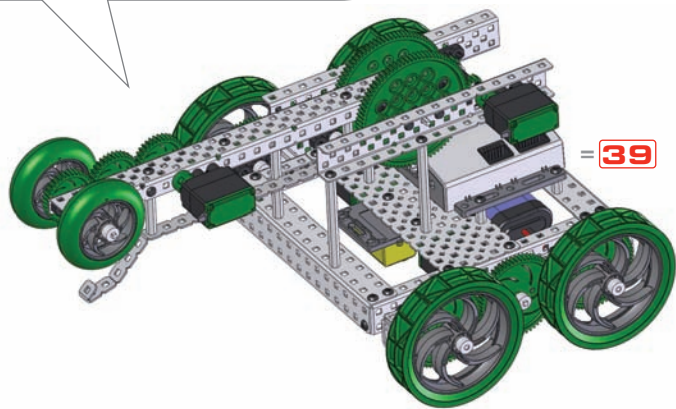
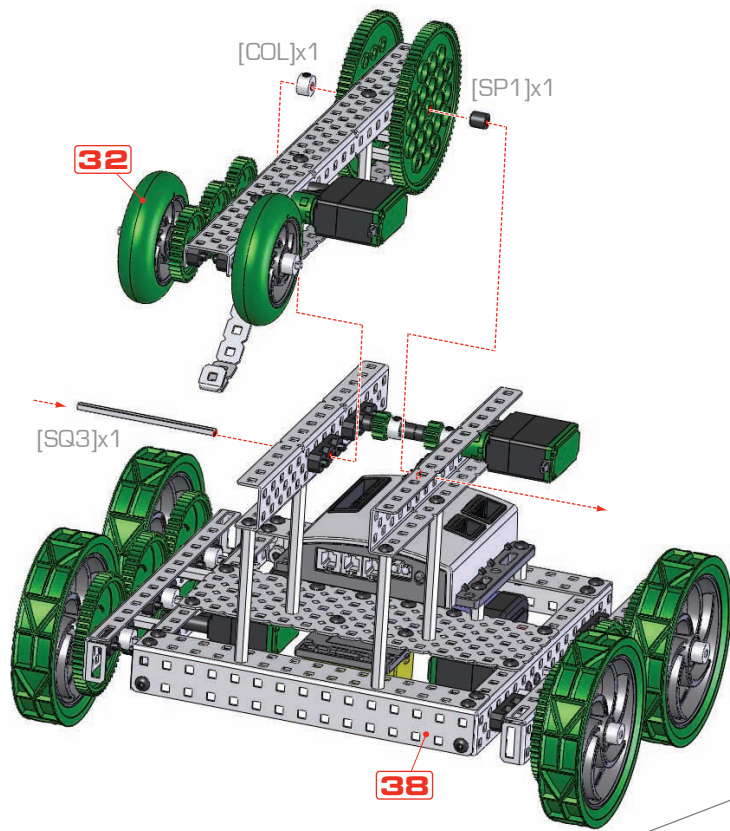
[BF]x2



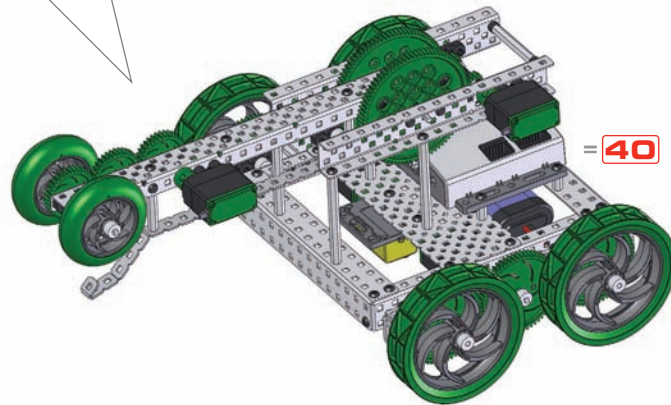
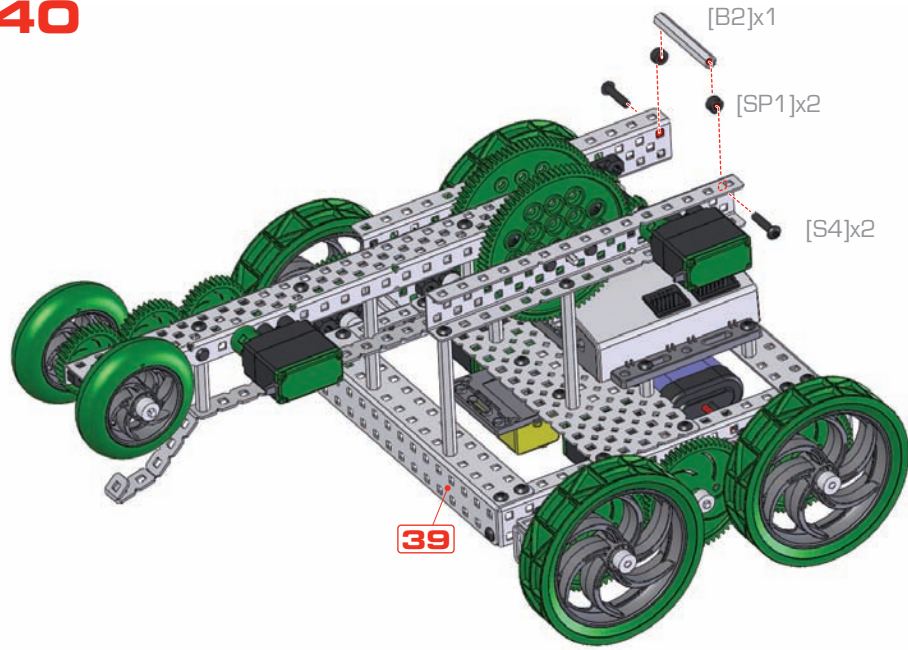
**37**

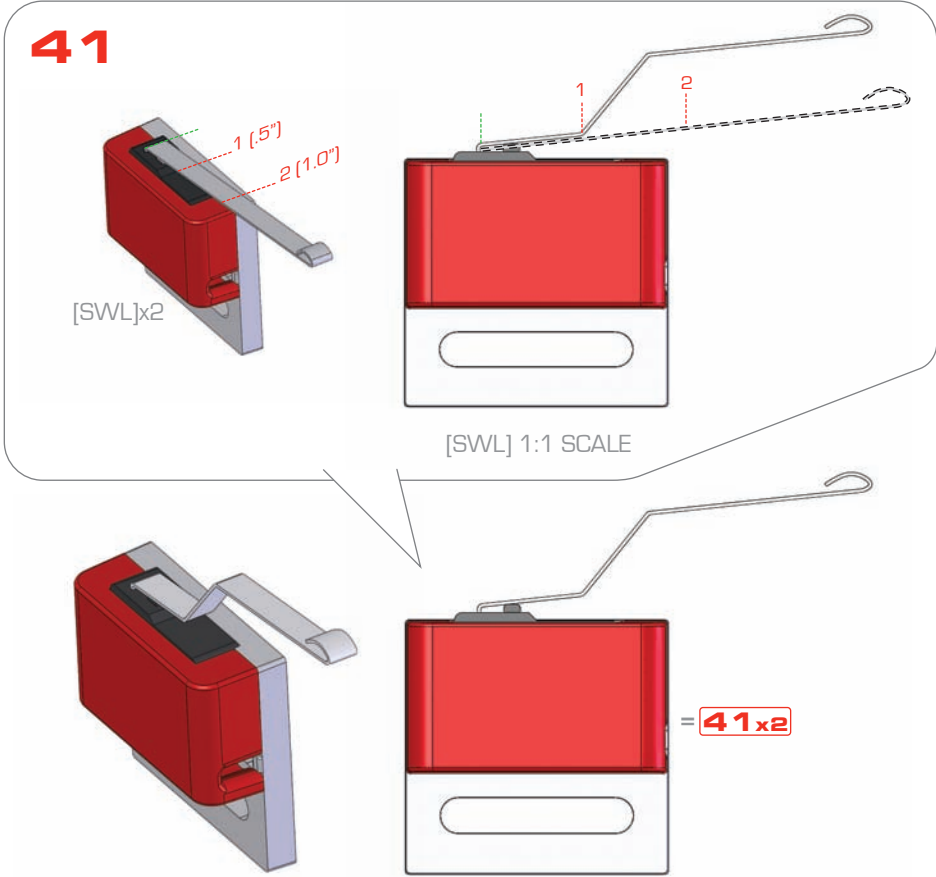


**39**



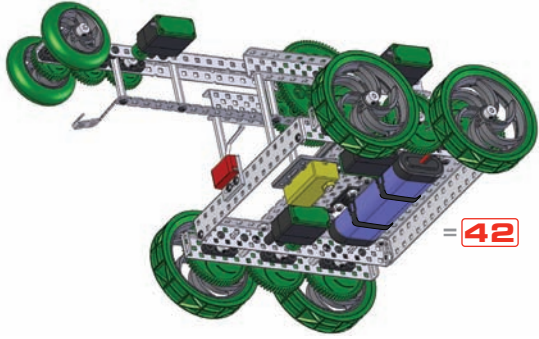
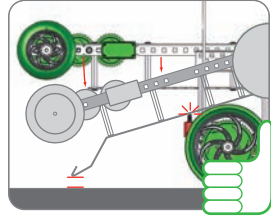
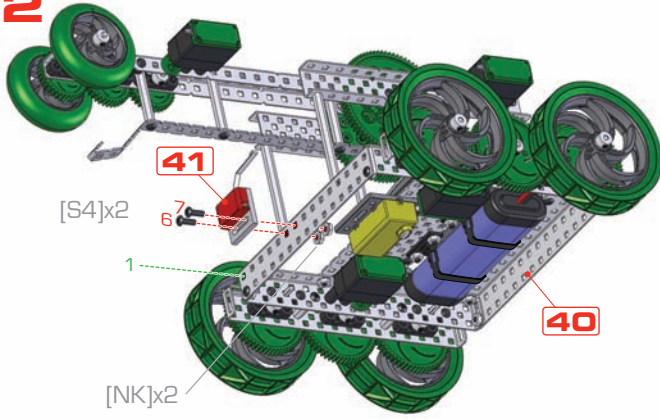
**40**



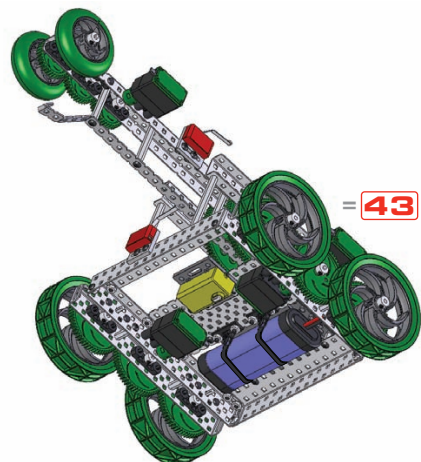
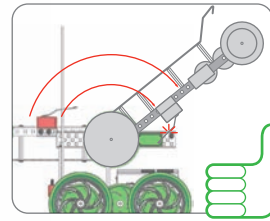
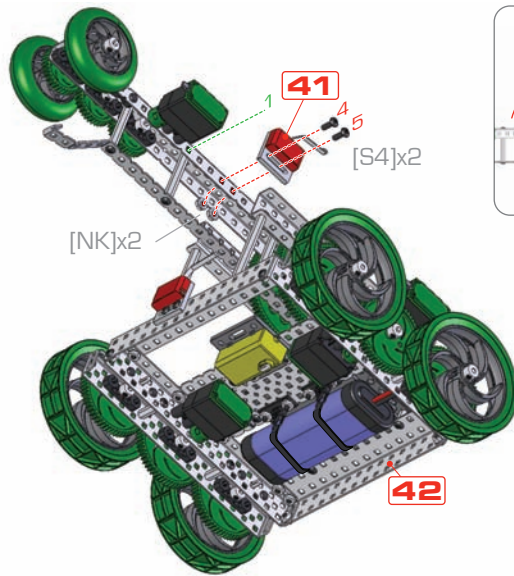




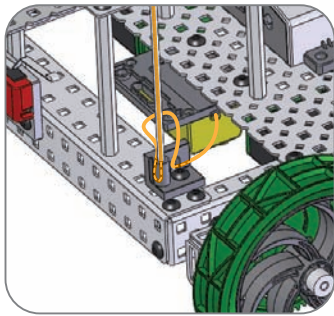
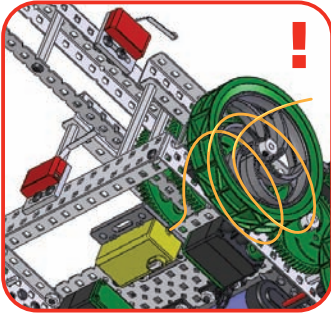
**42**



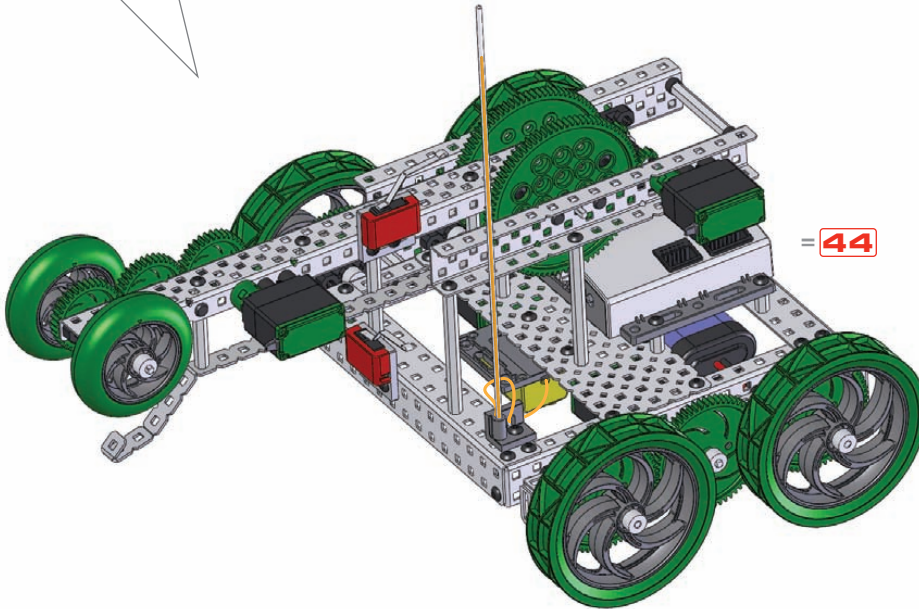
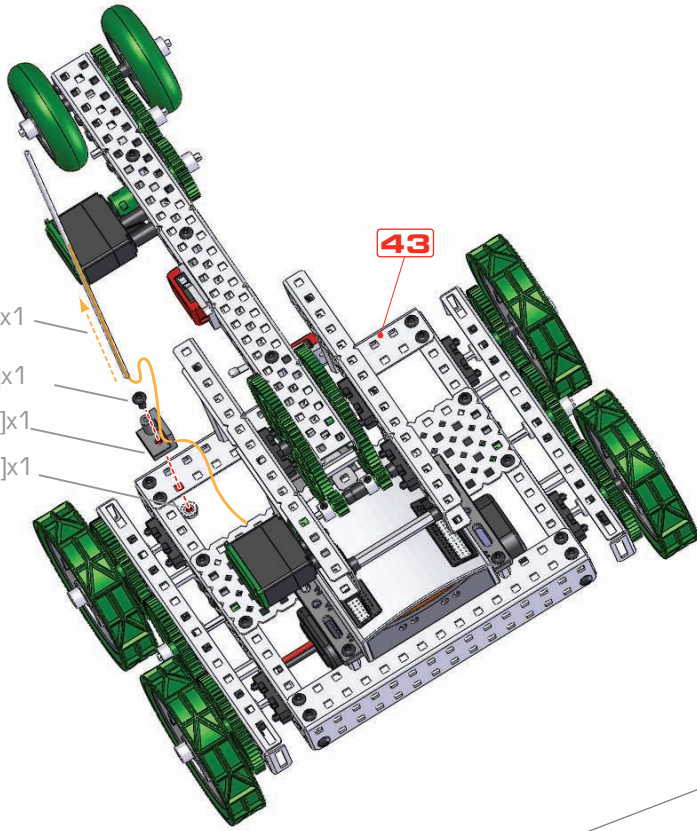
**43**



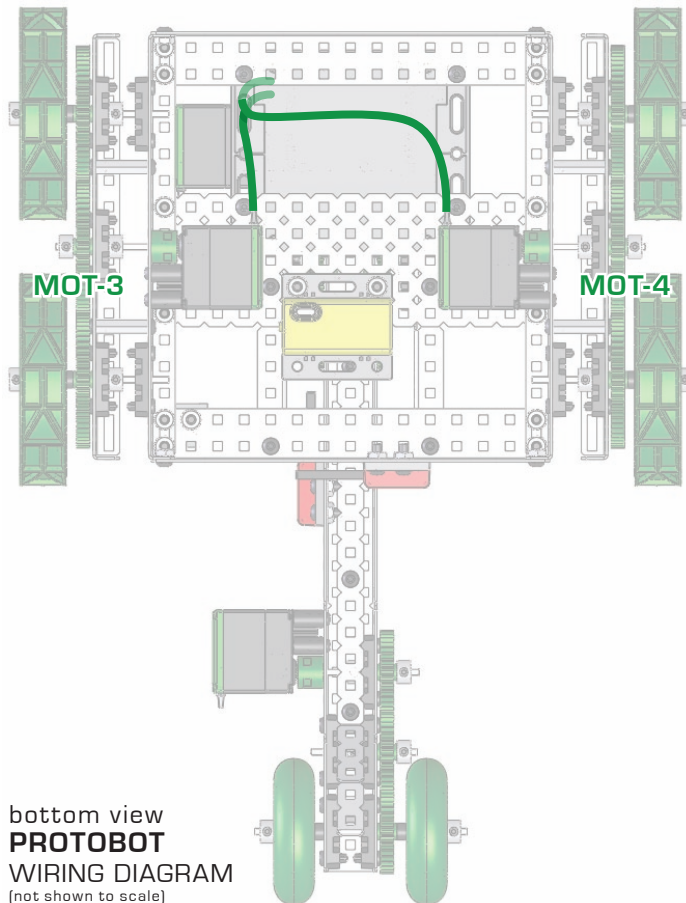
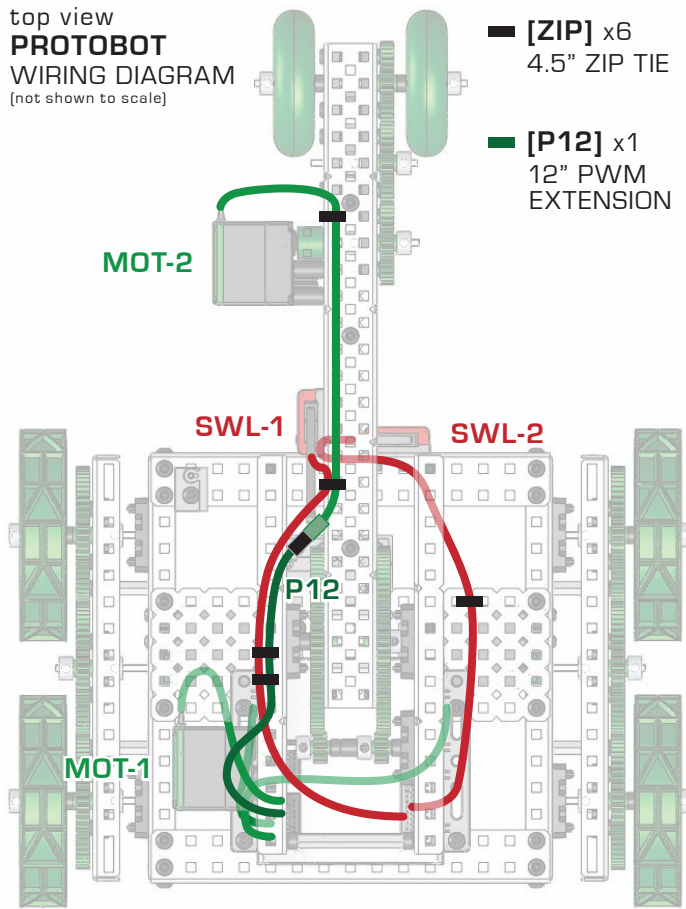
44



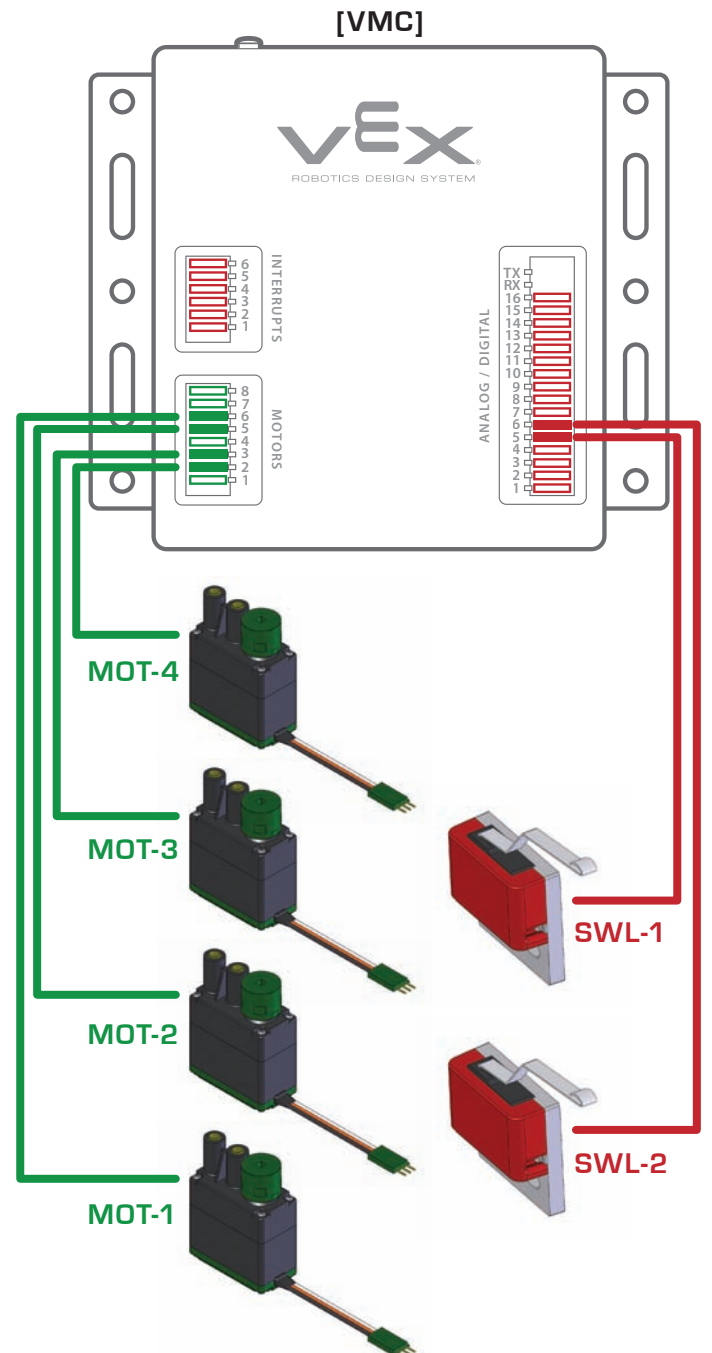
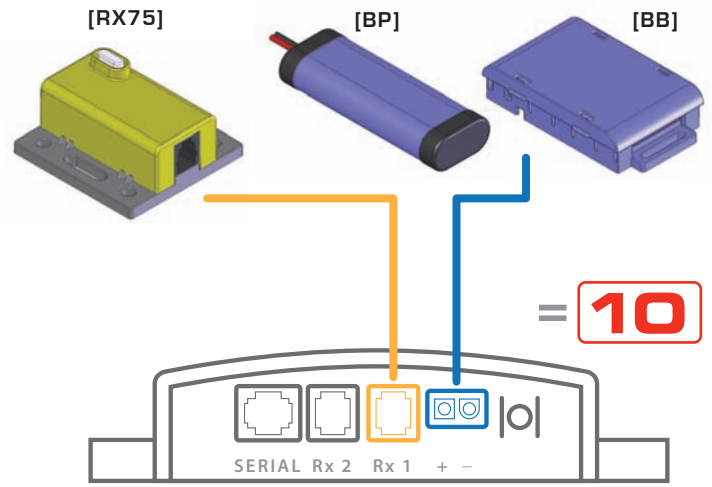
- [AT]x1
- [S3]x1
- [AH]x1
- [NK]x1



top view  
**PROTOBOT**  
 WIRING DIAGRAM  
 (not shown to scale)



bottom view  
**PROTOBOT**  
 WIRING DIAGRAM  
 (not shown to scale)

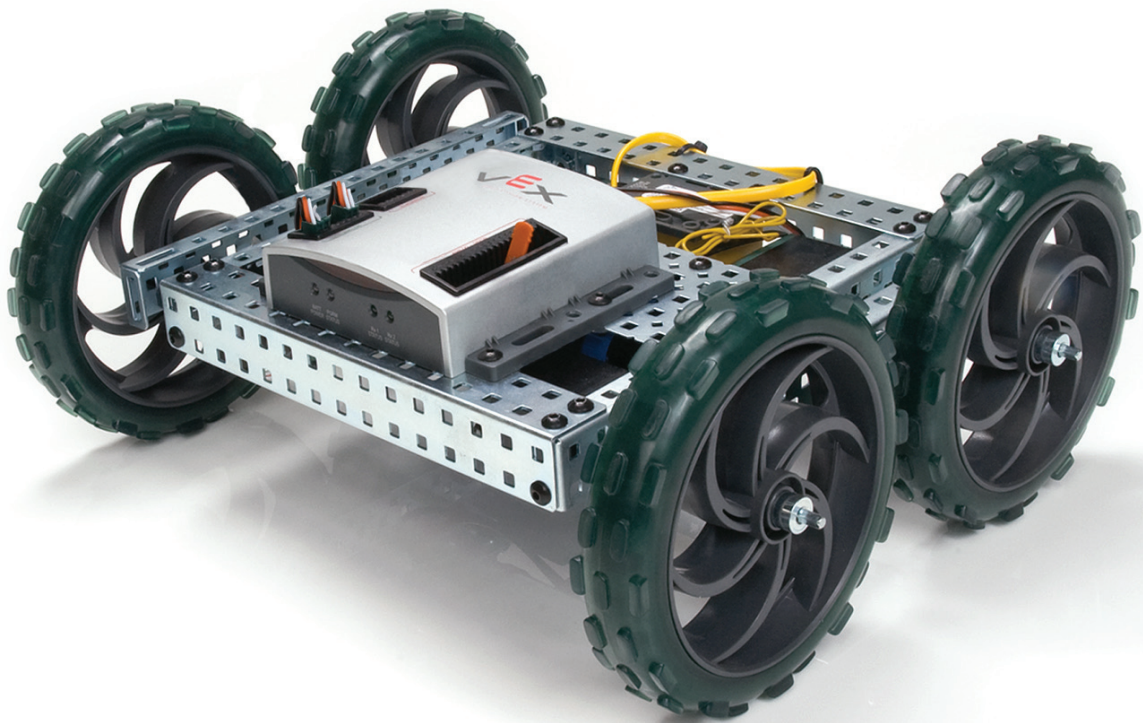




# QUICK START GUIDE

for building the

# Tumbler

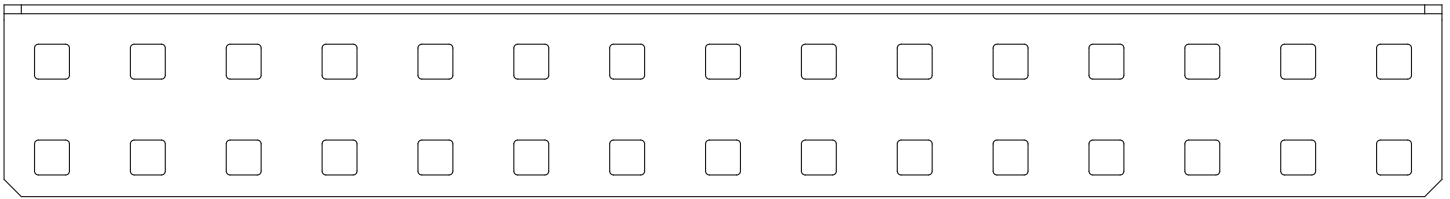




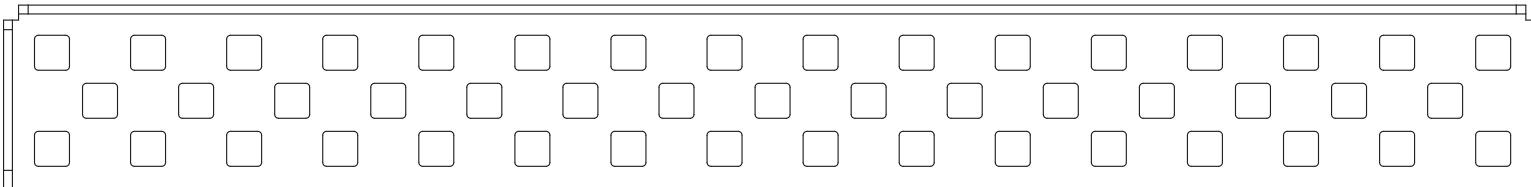
5 HOLE

10 HOLE

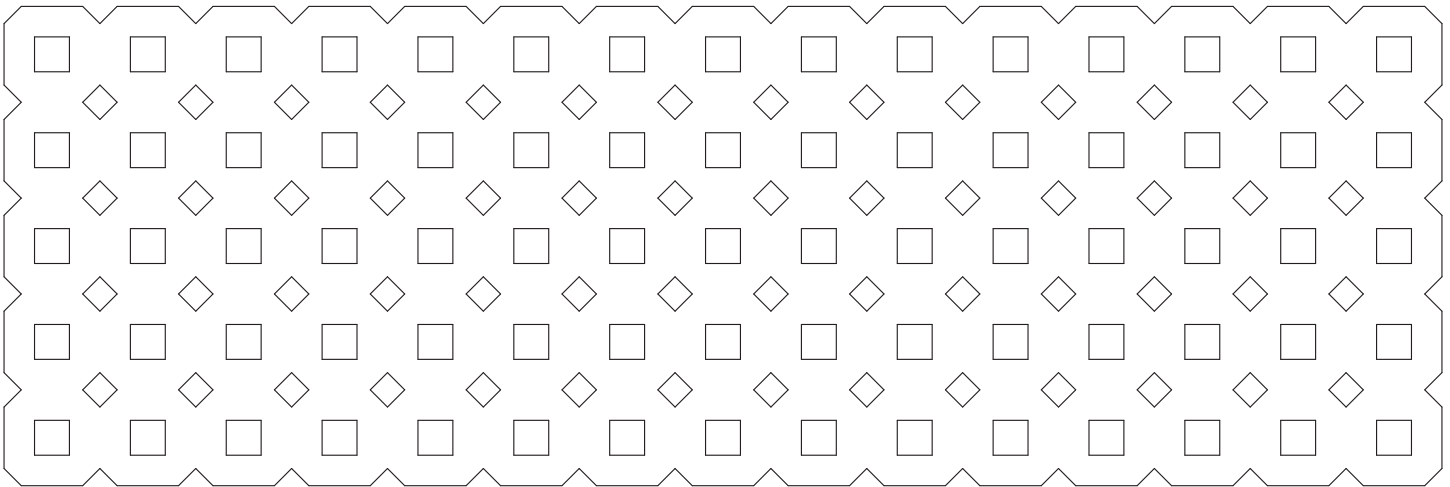
15 HOLE



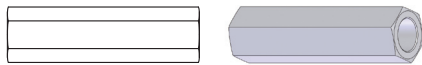
[A15] x2 CHASSIS BUMPER, 15 HOLE



[R15] x4 CHASSIS RAIL, 16 HOLE



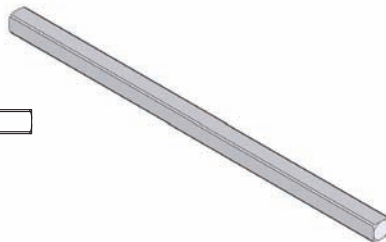
[P15] x1 PLATE, 5 x 15 HOLE



[B1] x4 1" STANDOFF



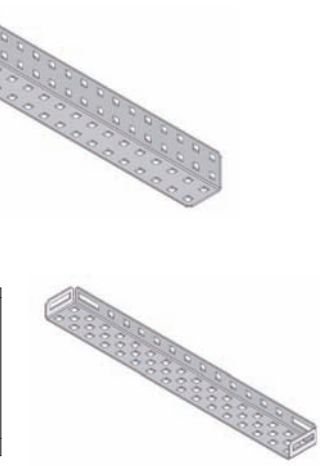
[SQ3] x4  
3" SHAFT



20 HOLE

25 HOLE

30 HOLE



**[NK]** x26  
8-32 NUT KEPS



**[SS2]** x8  
1/4" MOTOR SCREW



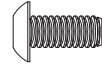
**[SP2]** x1  
SPACER THICK



**[S2]** x24  
1/4" SCREW



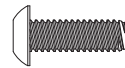
**[SP1]** x4  
SPACER THIN



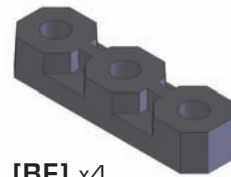
**[S3]** x11  
3/8" SCREW



**[COL]** x8  
COLLAR



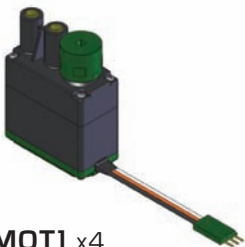
**[S4]** x1  
1/2" SCREW



**[BF]** x4  
BEARING FLAT



**[BR]** x8  
POP RIVETS

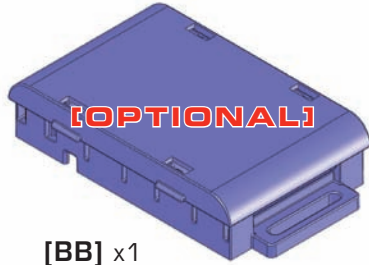


**[MOT]** x4  
MOTOR w/CLUTCH  
(not shown to scale)



**[OPTIONAL]**

**[BST]** x2  
BATTERY TIE DOWN  
(not shown to scale)

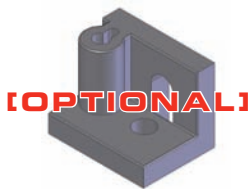


**[OPTIONAL]**

**[BB]** x1  
7.2V AA BATTERY BOX  
(not shown to scale)



**[W5]** x4  
WHEELS, LARGE 5", KNOBBY  
(not shown to scale)



**[AH]** x1  
ANTENNA HOLDER  
(optional accessory, not shown to scale)



**[OPTIONAL]**

**[JMP]** x1  
JUMPER  
(optional accessory, not shown to scale)



**[OPTIONAL]**

**[AT]** x1  
ANTENNA TUBE  
(optional accessory, not shown to scale)



**[OPTIONAL]**

**[BP]** x1  
7.2V RECHARGEABLE BATTERY  
(optional accessory, not shown to scale)



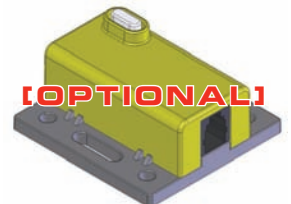
**[OPTIONAL]**

**[VMC]** x1  
MICRO CONTROLLER  
(optional accessory, not shown to scale)



**[OPTIONAL]**

**[SSX]** x1  
SIGNAL SPLITTER  
(optional accessory, not shown to scale)



**[OPTIONAL]**

**[RX75]** x1  
RF RECEIVER & CABLE  
(optional accessory, not shown to scale)





[5/64"]x1



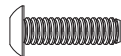
[3/32"]x1



[1/4"]x1



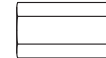
[SS2] 1/4" MOTOR SCREW



[SS4] 1/2" MOTOR SCREW

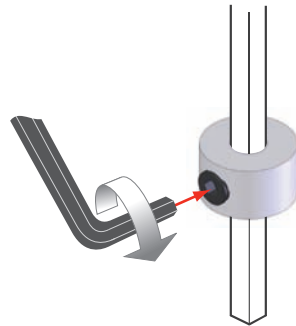


[NK] 8-32 NUT KEPS



[B0.5, 1, 2, 3]

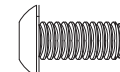
[1/4"]



[COL] COLLAR



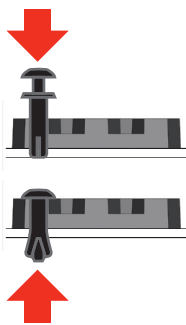
[S2] 1/4" SCREW



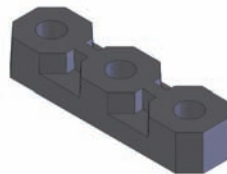
[S3] 3/8" SCREW



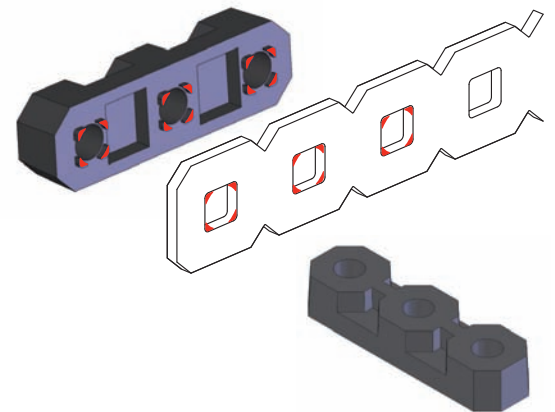
[3/32"]



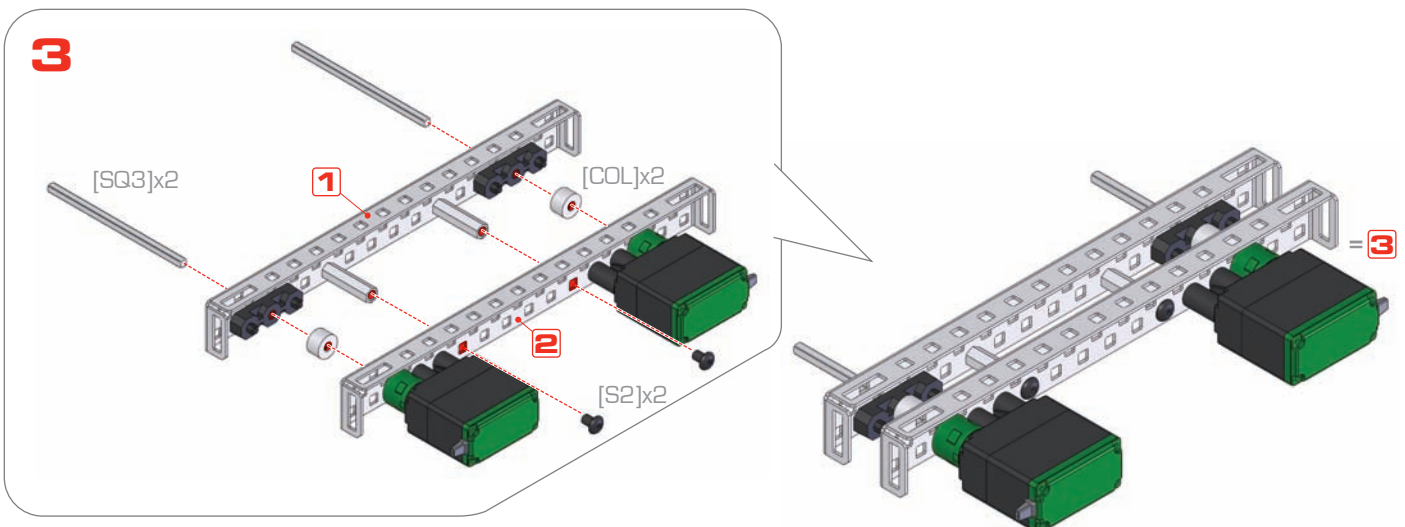
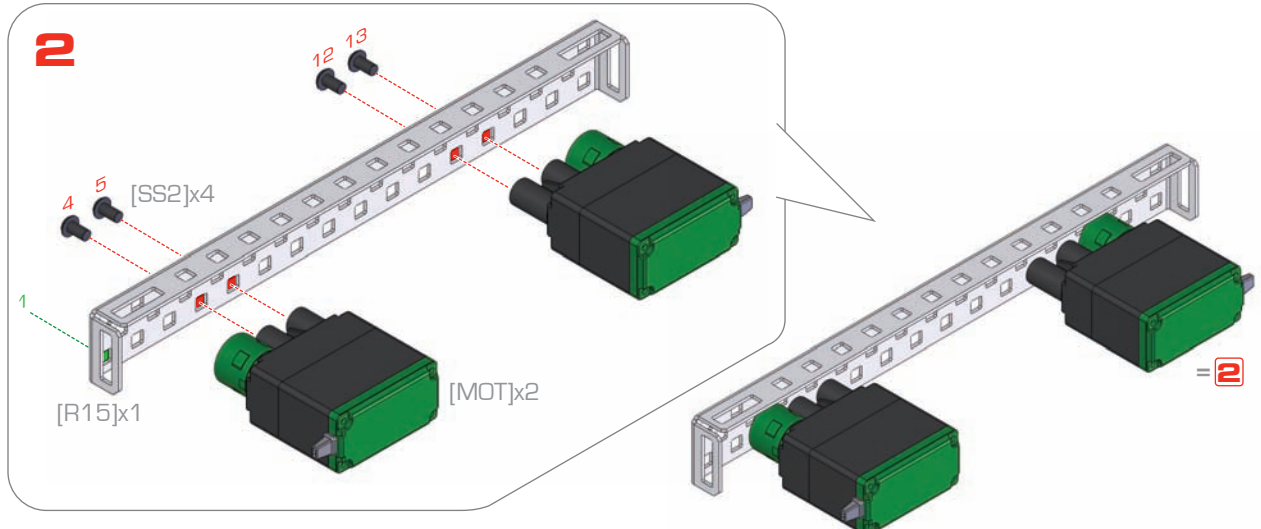
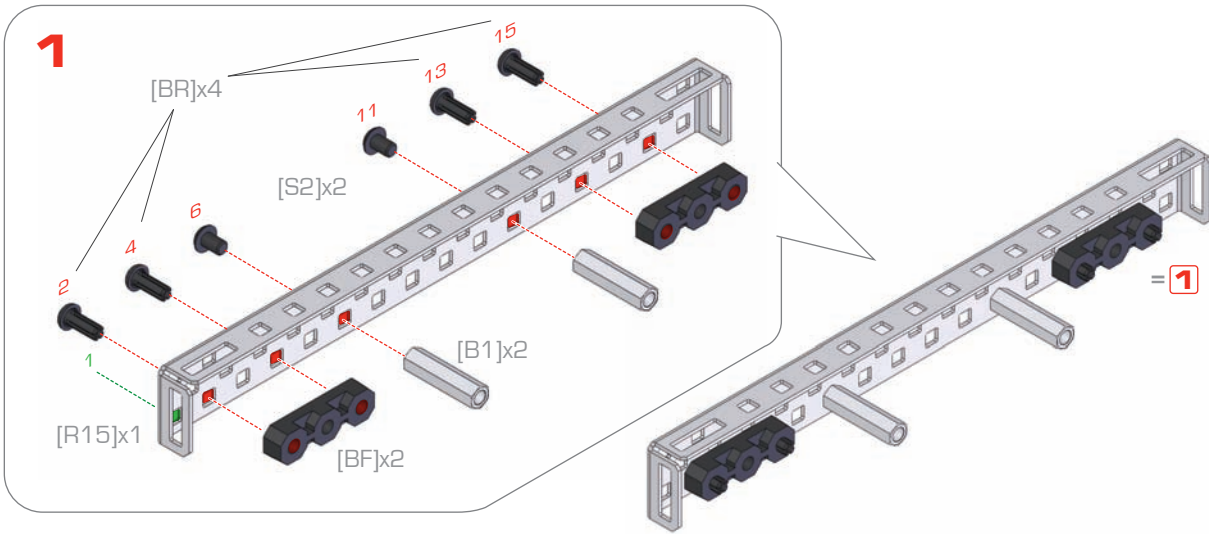
[BR] POP RIVETS



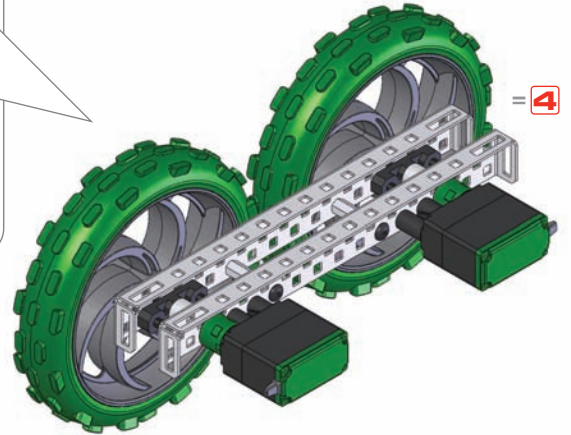
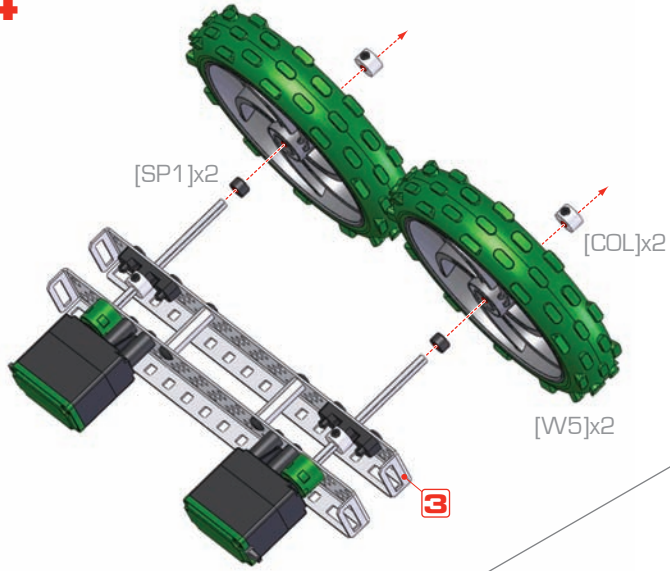
[BF] BEARING FLAT



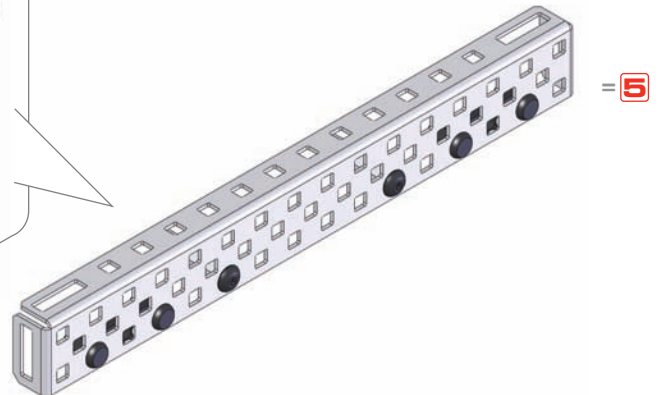
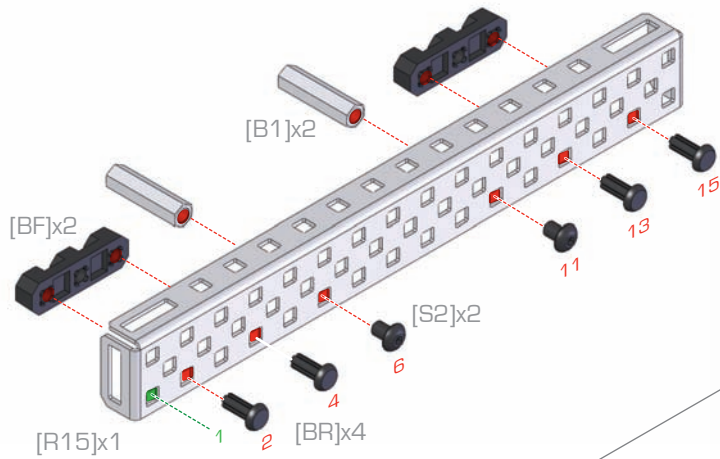
[BF] BEARING FLAT



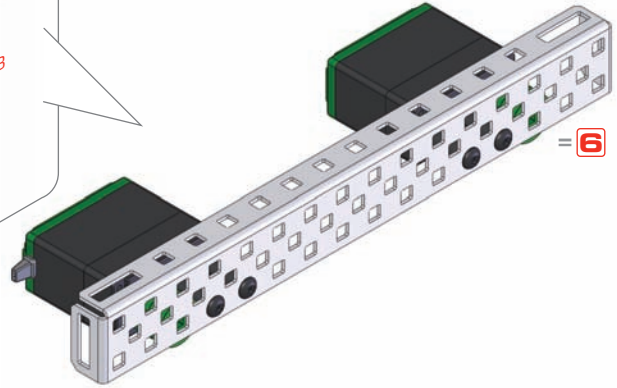
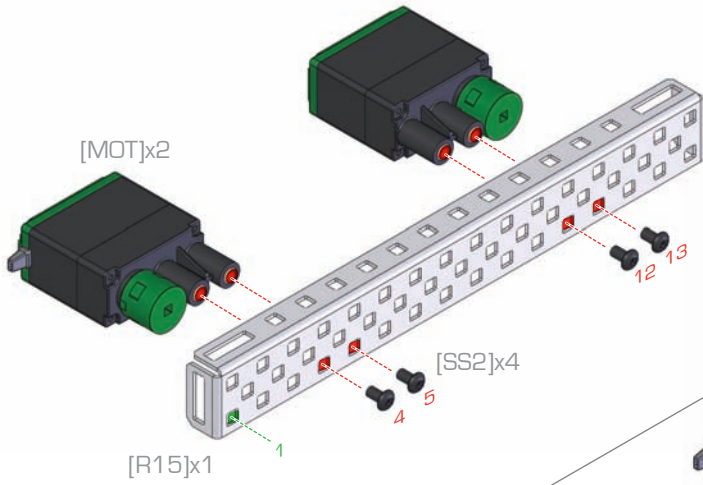
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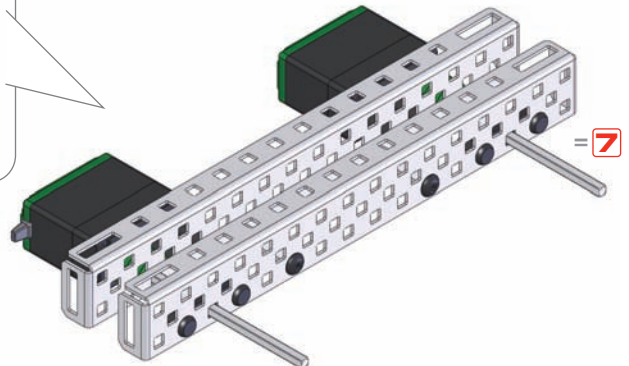
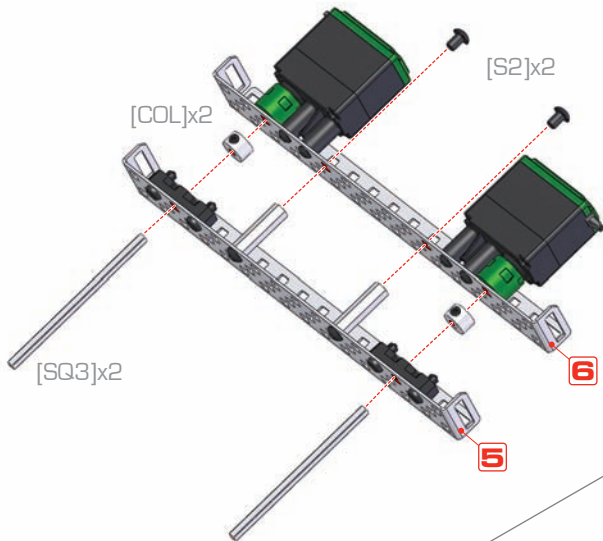
5



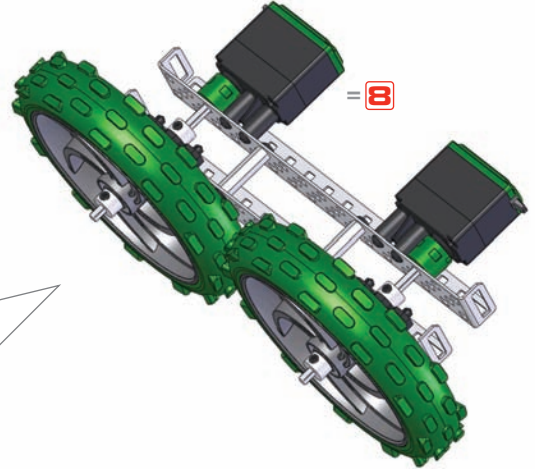
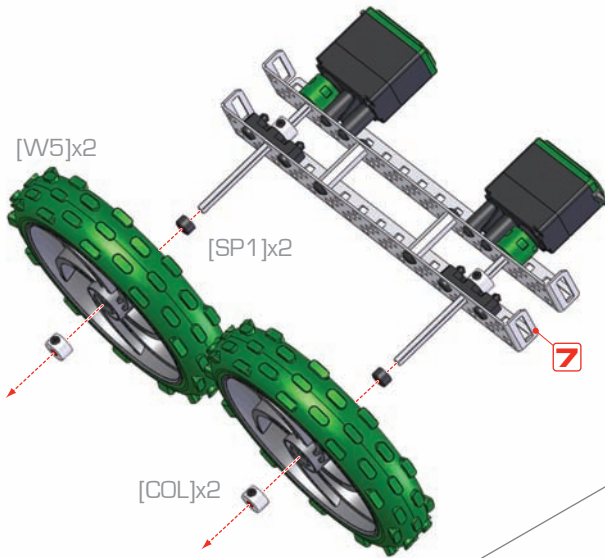
6



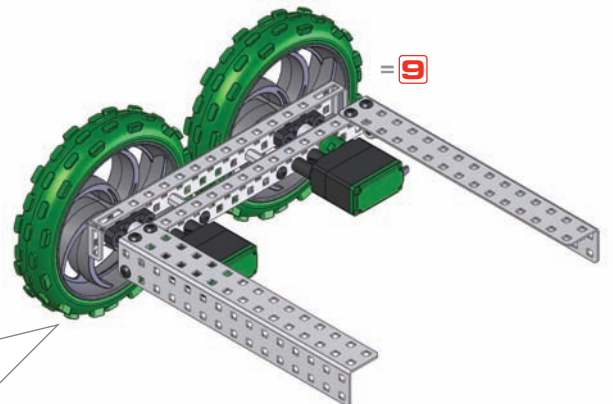
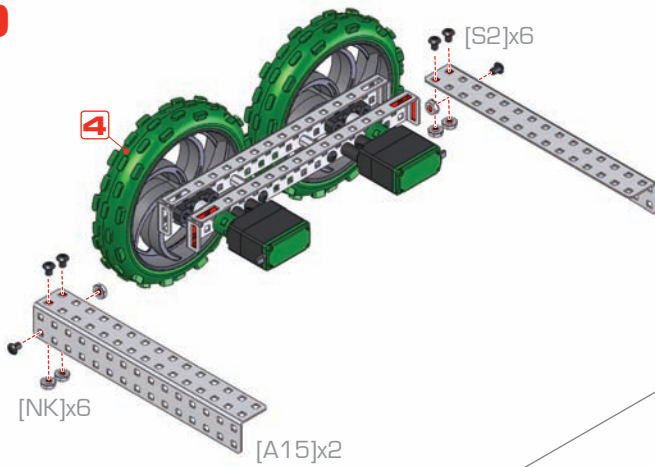
7



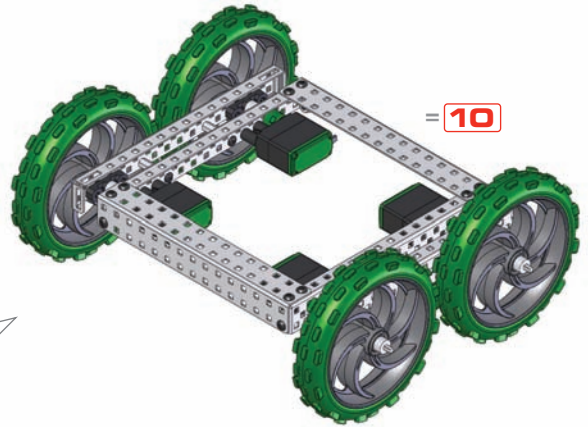
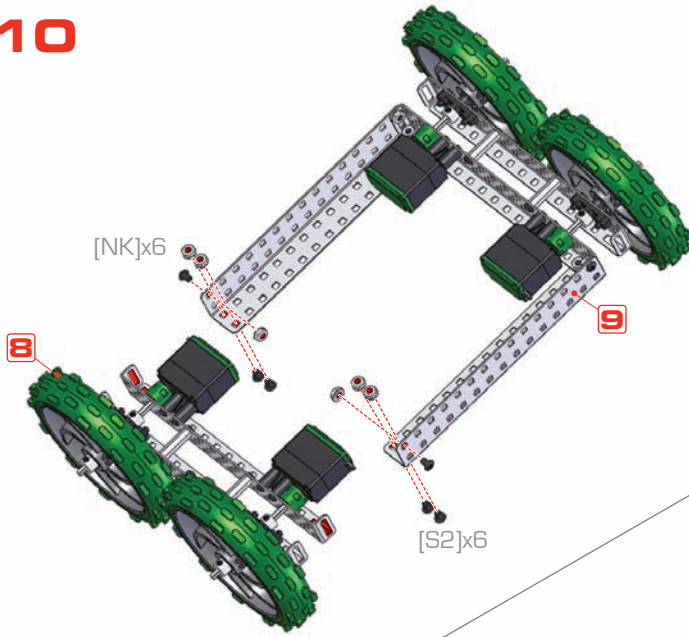
8



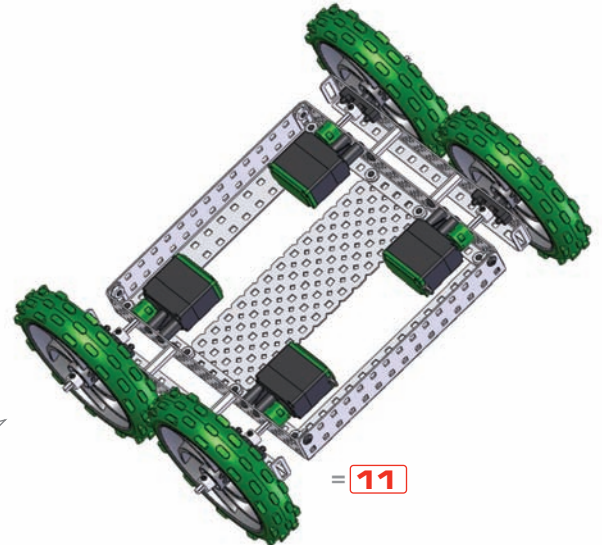
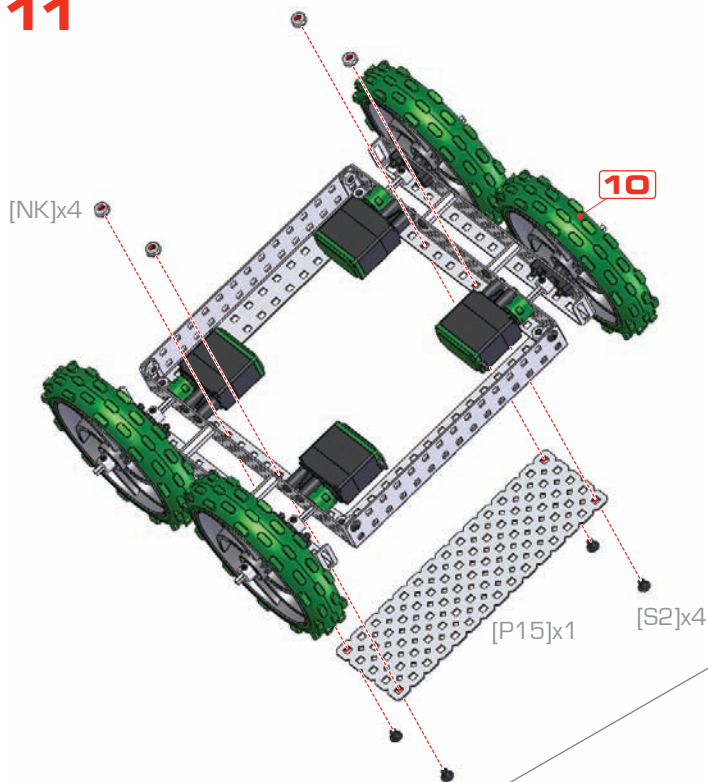
9

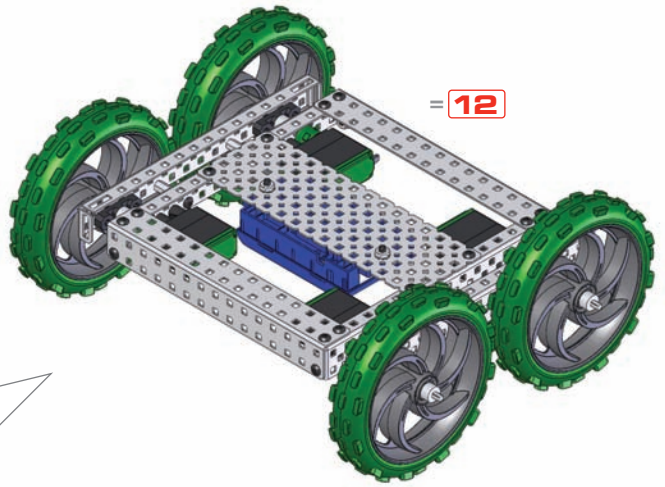
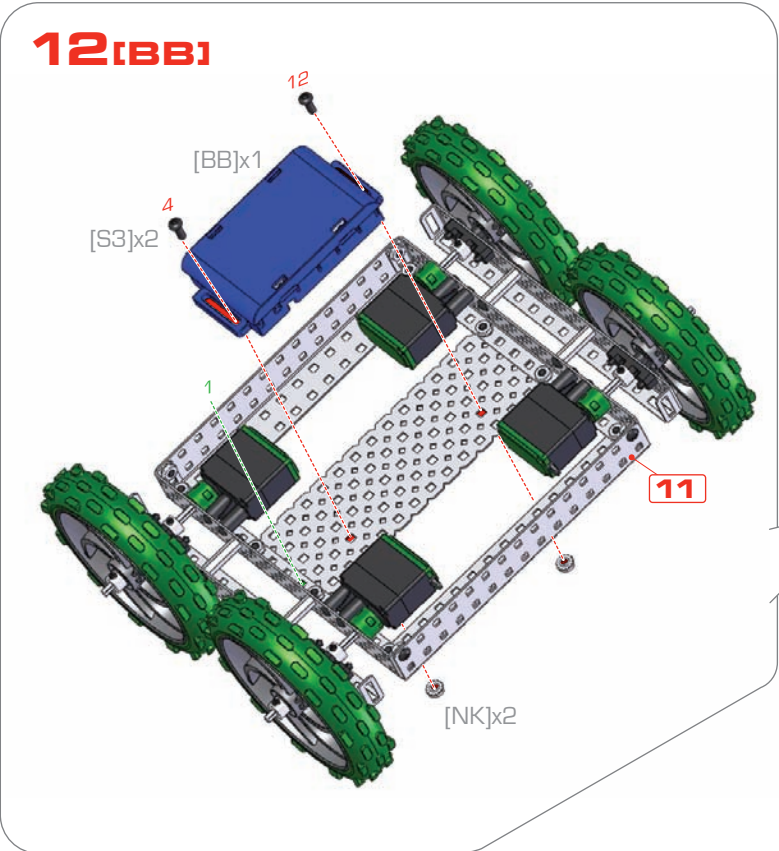
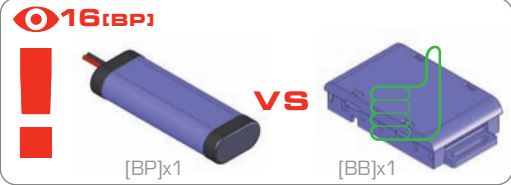


10

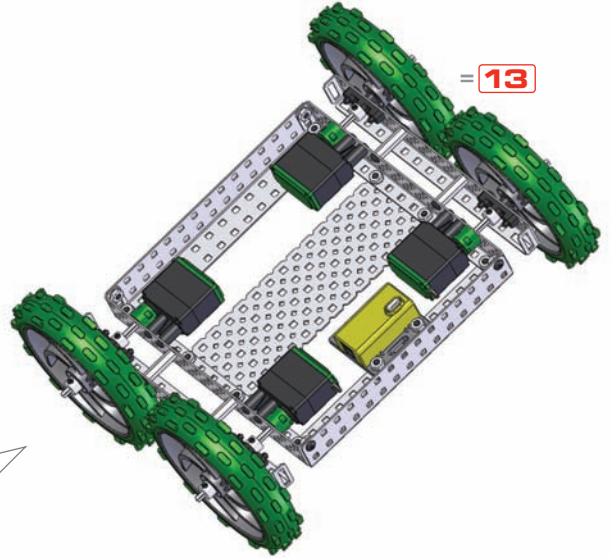
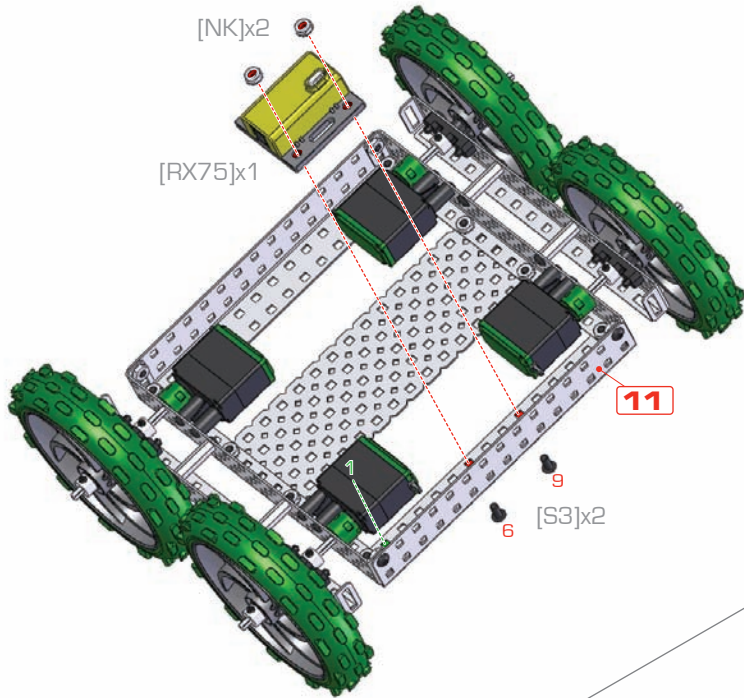


11

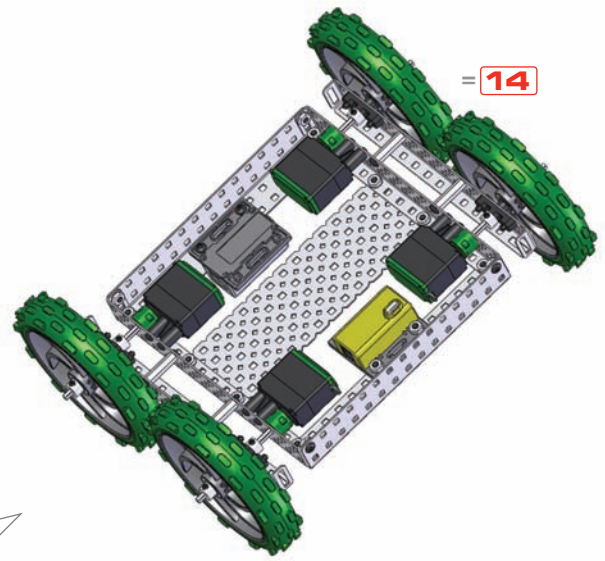
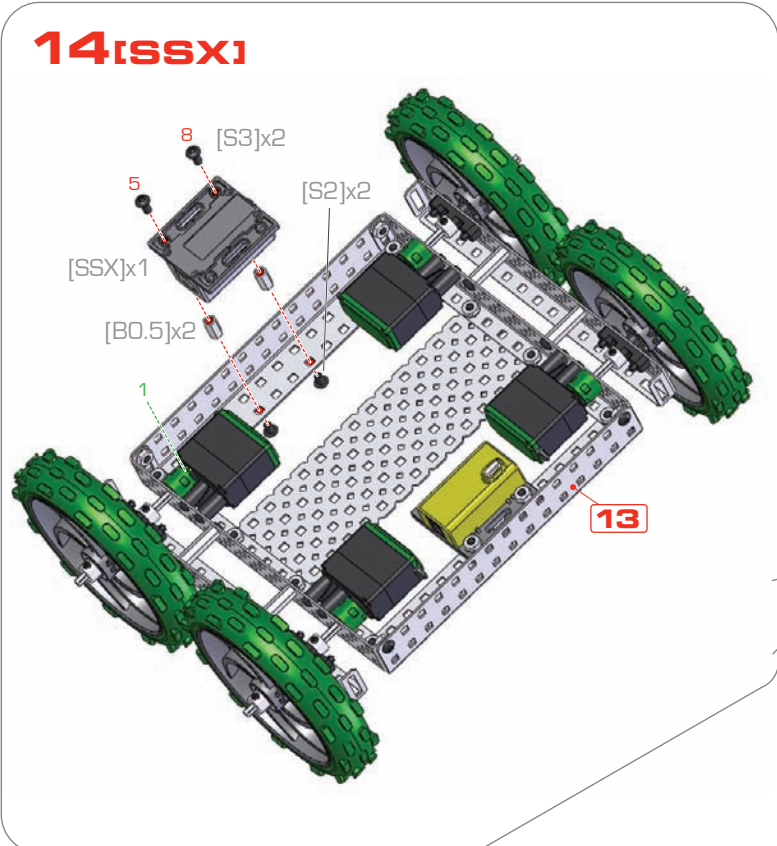
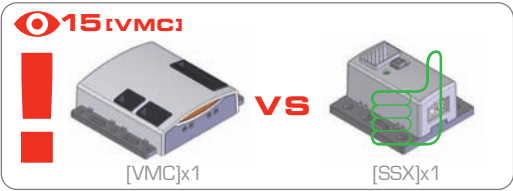


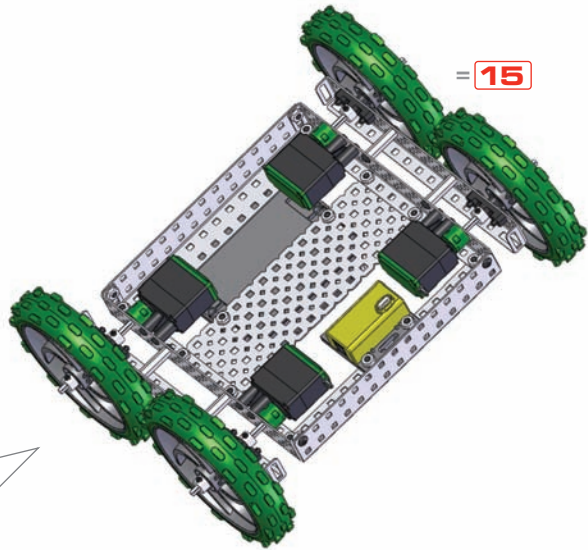
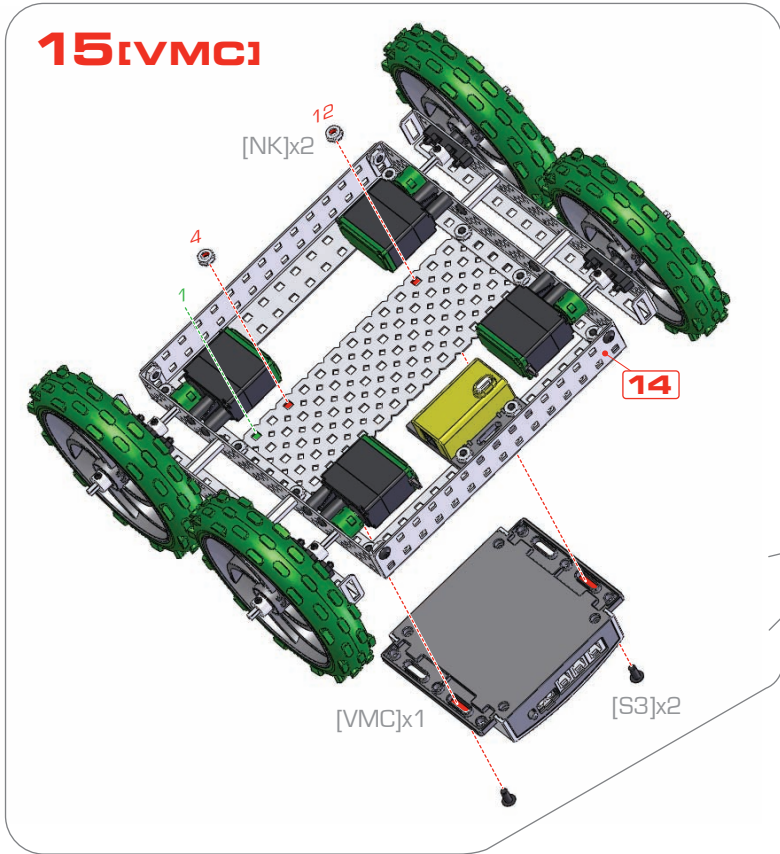
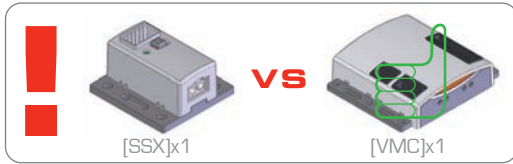


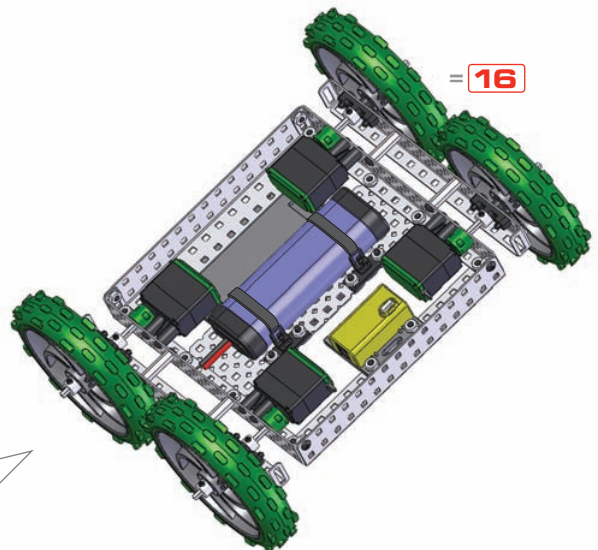
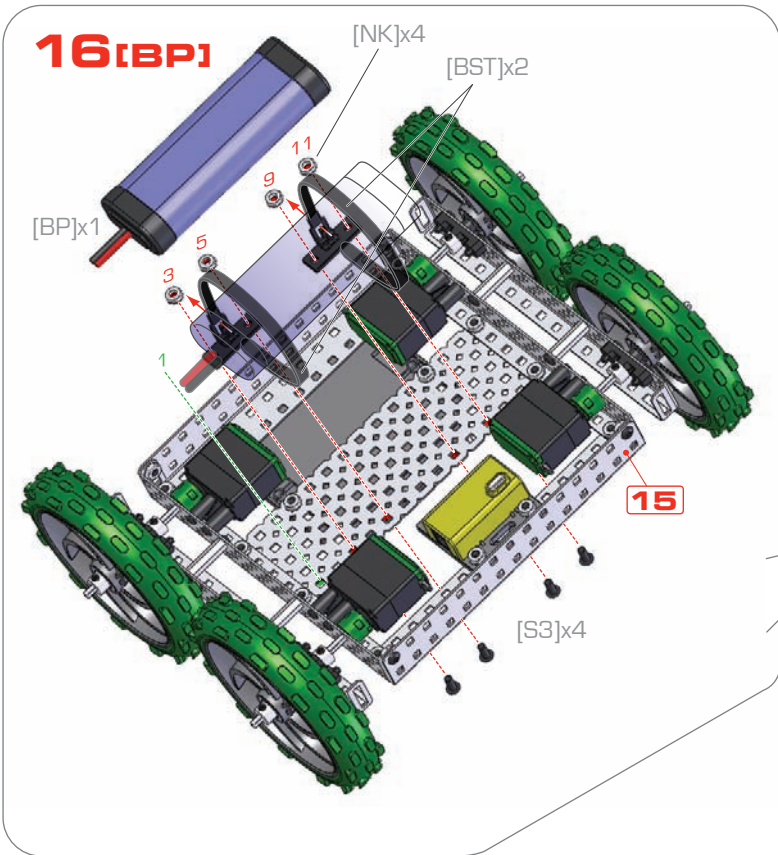
**13**



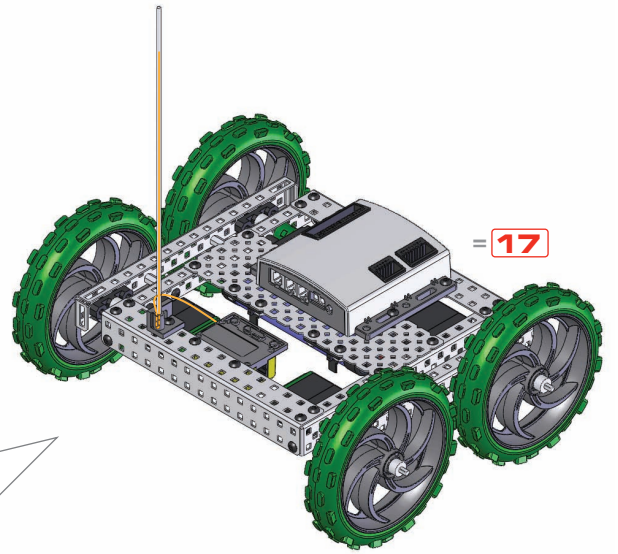
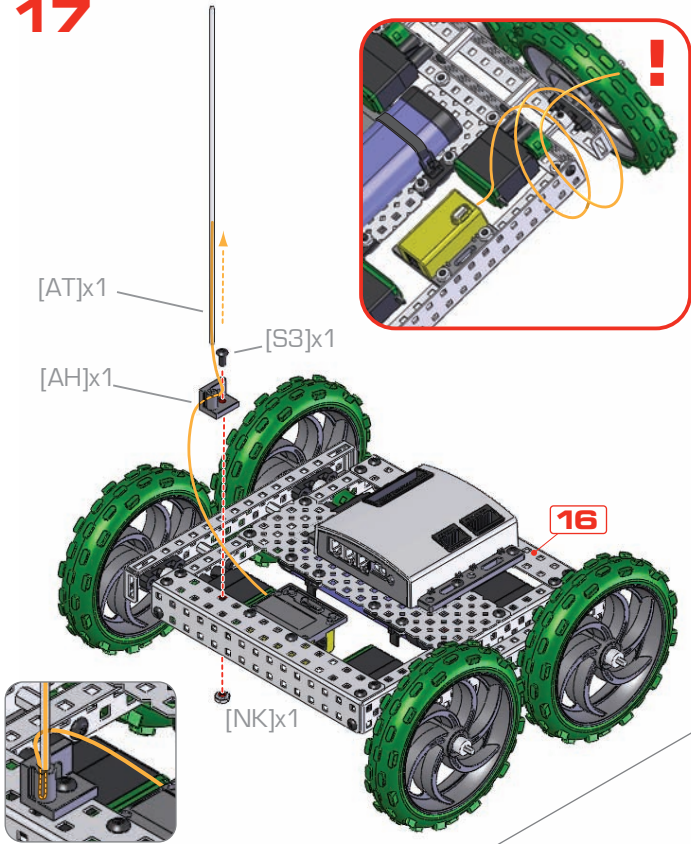




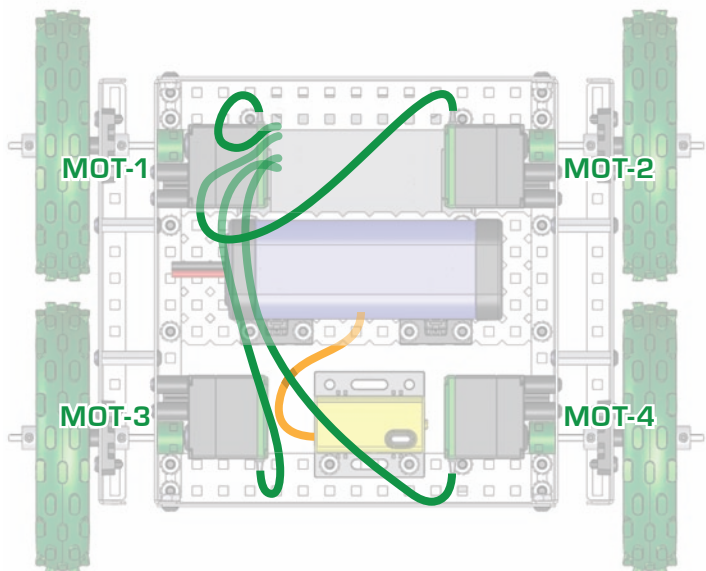
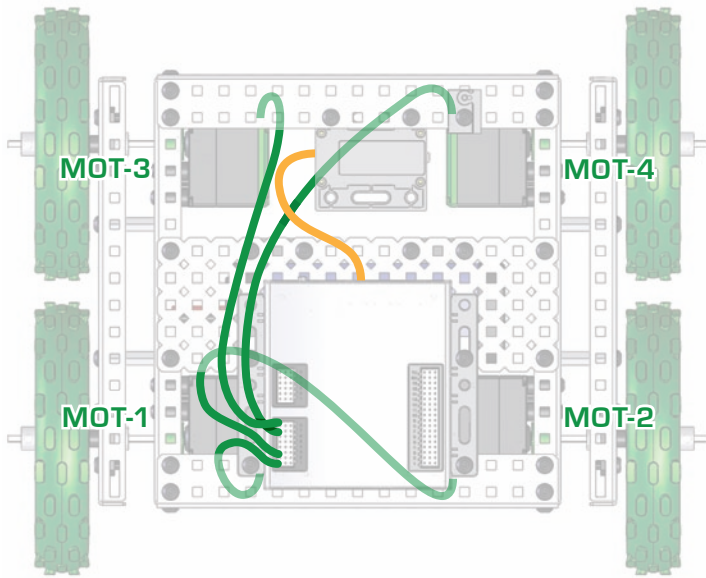




17



top view  
**TUMBLER**  
 WIRING DIAGRAM  
 (not shown to scale)



bottom view  
**TUMBLER**  
 WIRING DIAGRAM  
 (not shown to scale)

