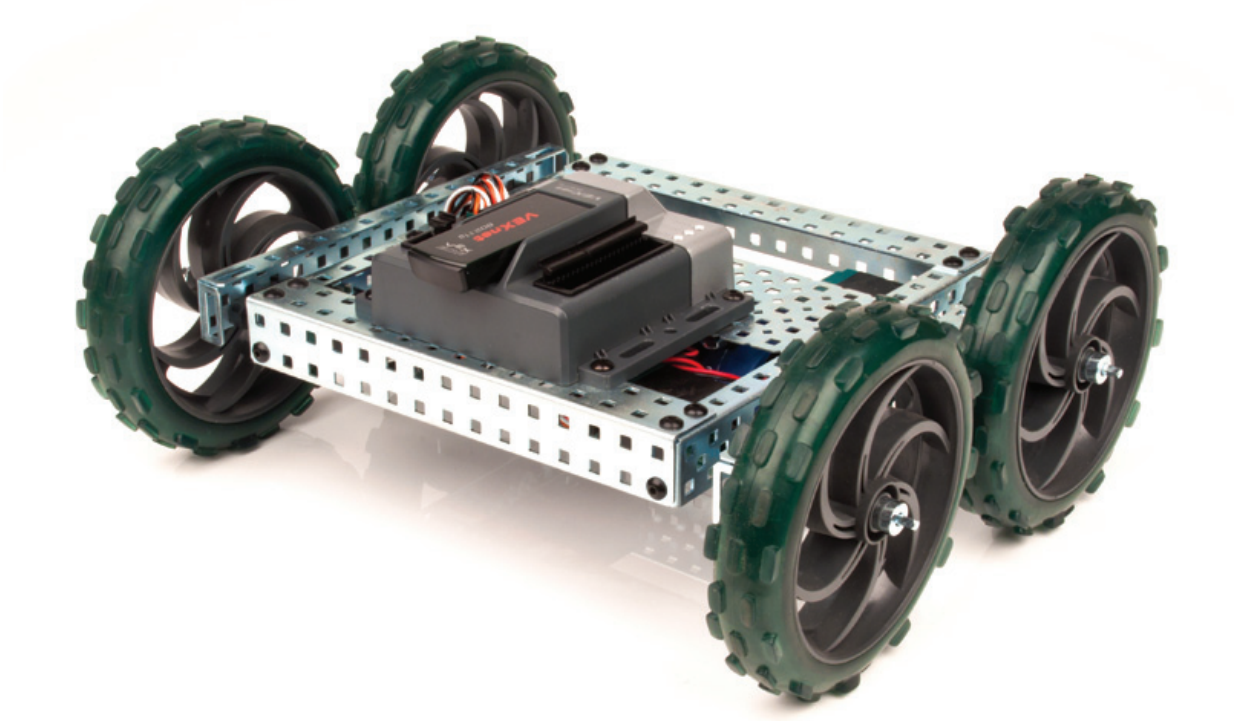
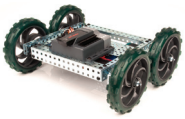
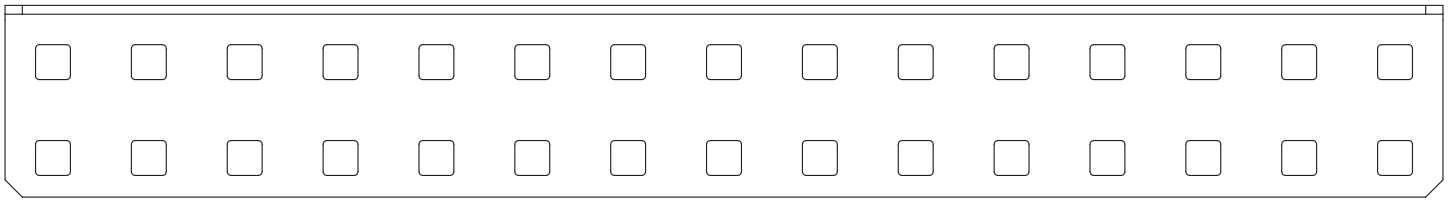
GUIDE FOR BUILDING THE

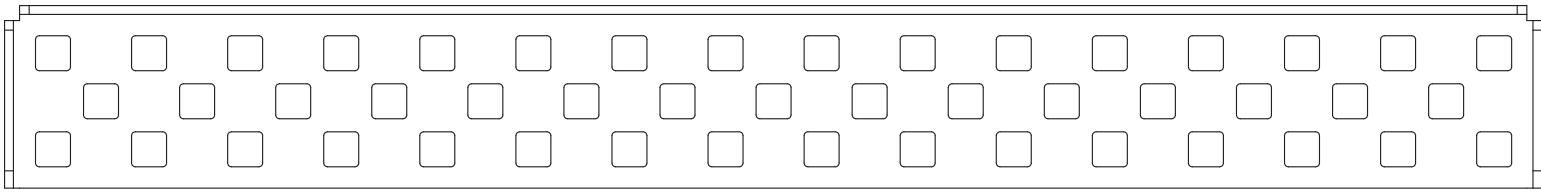
TUMBLER



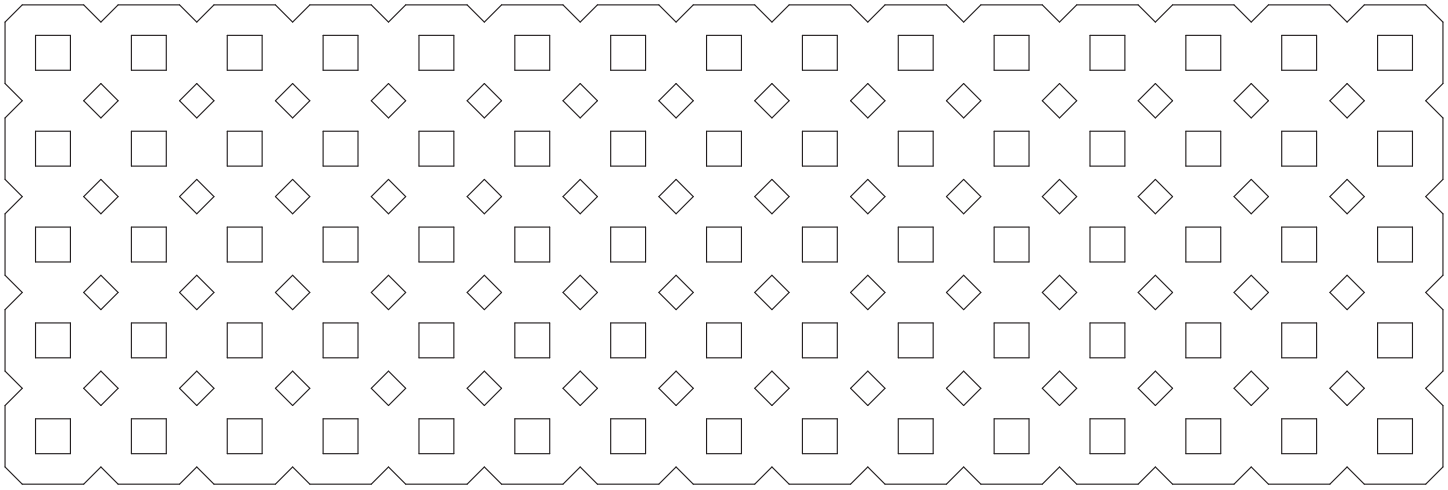




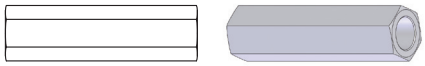
[A15] CHASSIS BUMPER, 15 HOLE



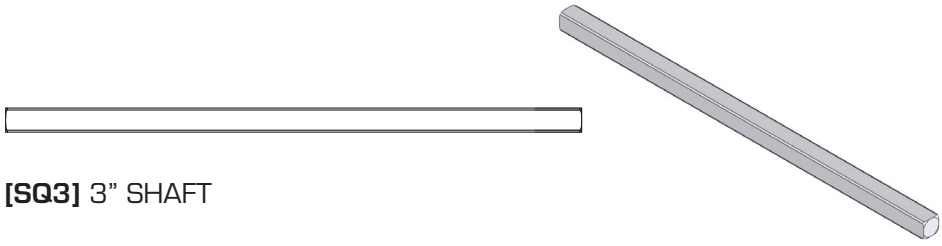
[R15] CHASSIS RAIL, 16 HOLE



[P15] PLATE, 5 X 15 HOLE

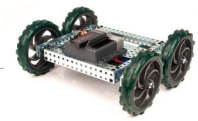


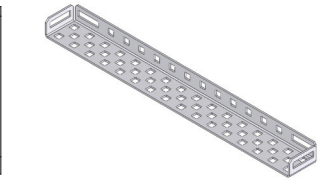
[B1] 1" STANDOFF



[SQ3] 3" SHAFT

E 20 HOLE 25 HOLE 30 HOLE





[NK]
8-32 KEPS NUT

[SS2]
1/4" MOTOR SCREW

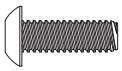
[SP1]
SPACER THIN

[S2]
1/4" SCREW

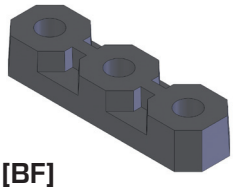
[COL]
COLLAR

[S3]
3/8" SCREW

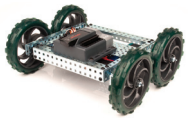
[BR]
POP RIVETS

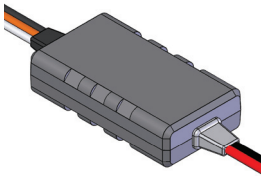


[S4]
1/2" SCREW

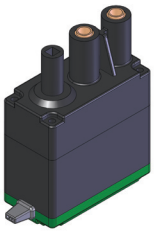


[BF]
BEARING FLAT

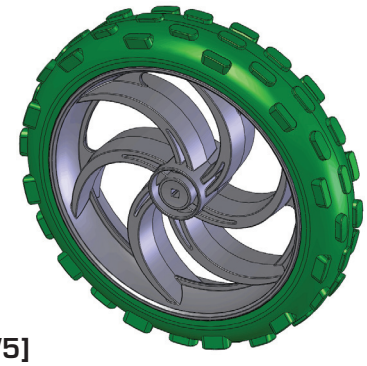




[M29]
MOTOR CONTROLLER 29
(not shown to scale)

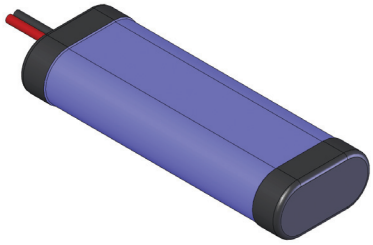


[MOT]
MOTOR
(not shown to scale)

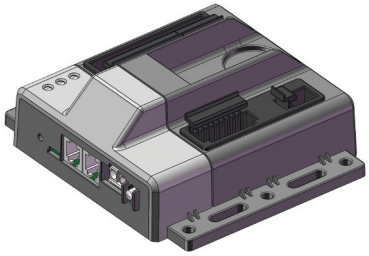


[W5]
WHEELS, LARGE 5", KNOBBY
(not shown to scale)

OPTIONAL [NOT INCLUDED]

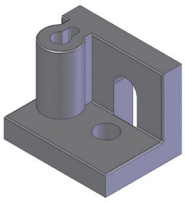


[BP]
7.2V RECHARGEABLE BATTERY
(optional accessory, not shown to scale)

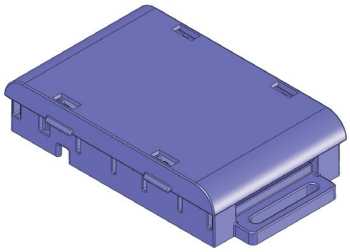


[CTX]
CORTEX
(optional accessory, not shown to scale)

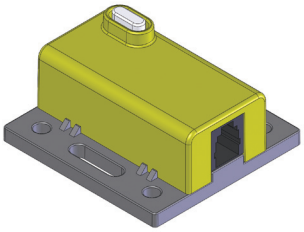
[VMC]
MICRO CONTROLLER
(optional accessory, not shown to scale)



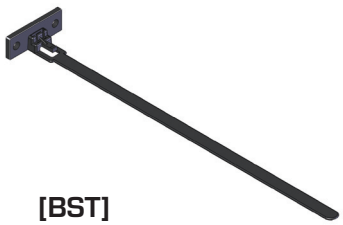
[AH]
ANTENNA HOLDER
(optional accessory, not shown to scale)



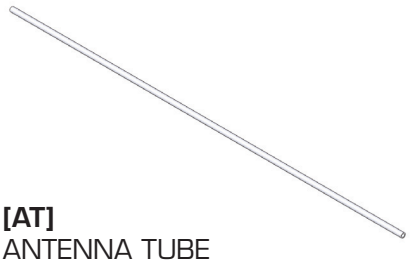
[BB]
7.2V AA BATTERY BOX
(optional accessory, not shown to scale)



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



[BST]
BATTERY TIE DOWN
(optional accessory, not shown to scale)



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

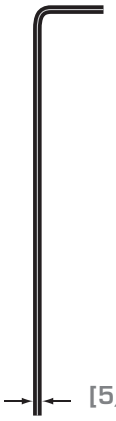
VEX ROBOTICS DESIGN SYSTEM

[5/64"]x1

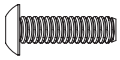
[3/32"]x1

[WRENCH]X1

1



[SS2] 1/4" MOTOR SCREW



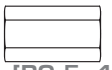
[SS4] 1/2" MOTOR SCREW
[OPTIONAL ACCESSORY]

[5/64"]

2

[11/32"]

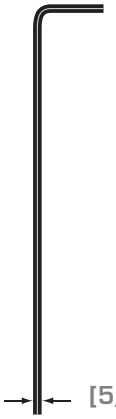
[NK] 8-32 KEPS NUT

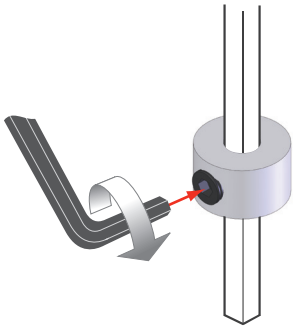


[BO.5, 1, 2, 3]

[1/4"]

3



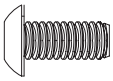


[COL] COLLAR

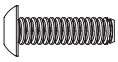
[5/64"]

4

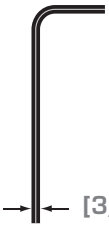
[S2] 1/4" SCREW



[S3] 3/8" SCREW

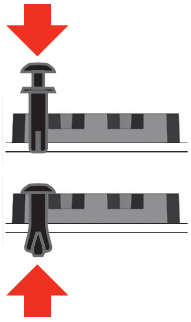


[S4] 1/2" SCREW

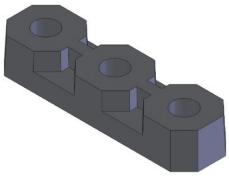


[3/32"]

5

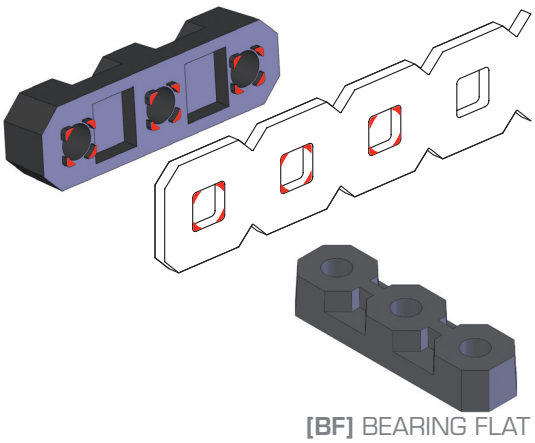


[BR] POP RIVETS



[BF] BEARING FLAT

6



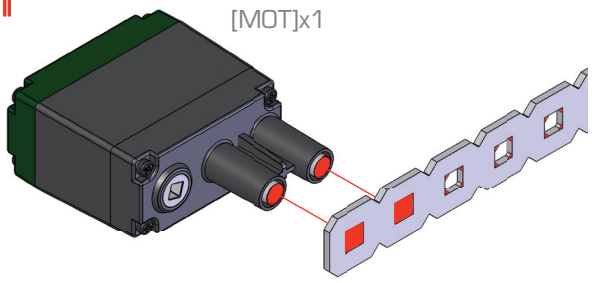
[BF] BEARING FLAT

[5/64”]x1

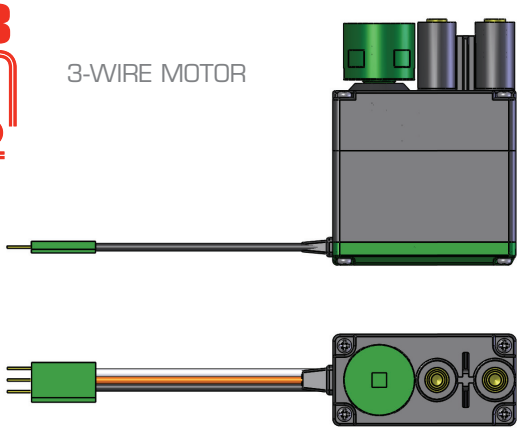
[3/32”]x1

[WRENCH]X1

[MOT]x1



3-WIRE MOTOR



[MOT]

2-WIRE MOTOR WITH MOTOR CONTROLLER 29

[M29]

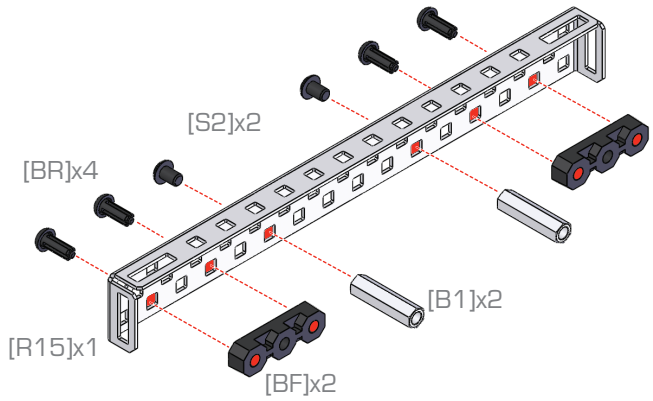
[MOT]

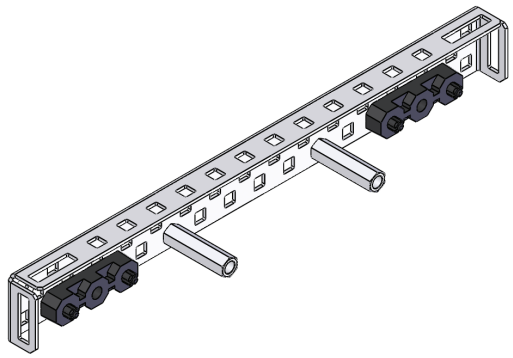
[M29]

[MOT]

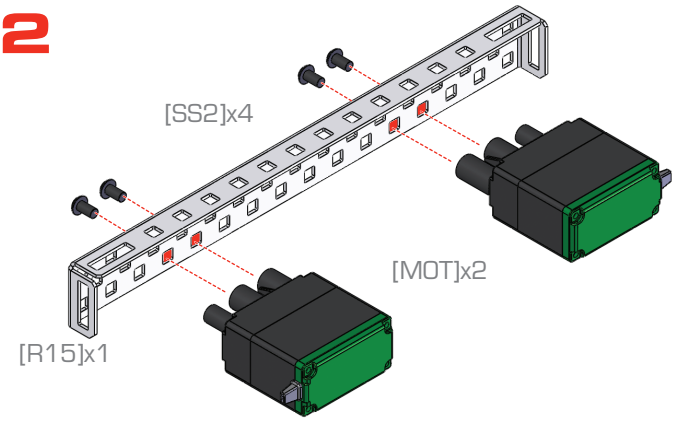
VEX ROBOTICS DESIGN SYSTEM

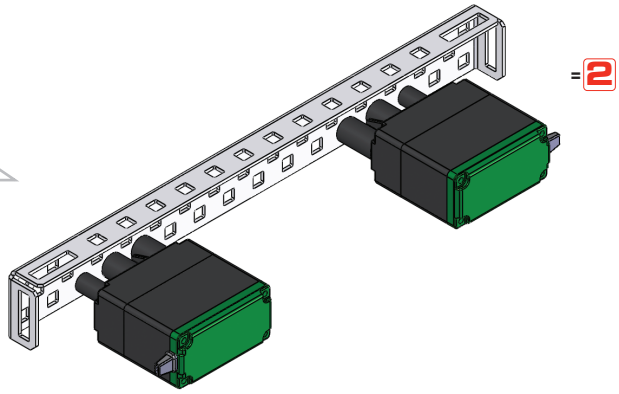
1


[S2]x2
[BR]x4
[B1]x2
[R15]x1
[BF]x2

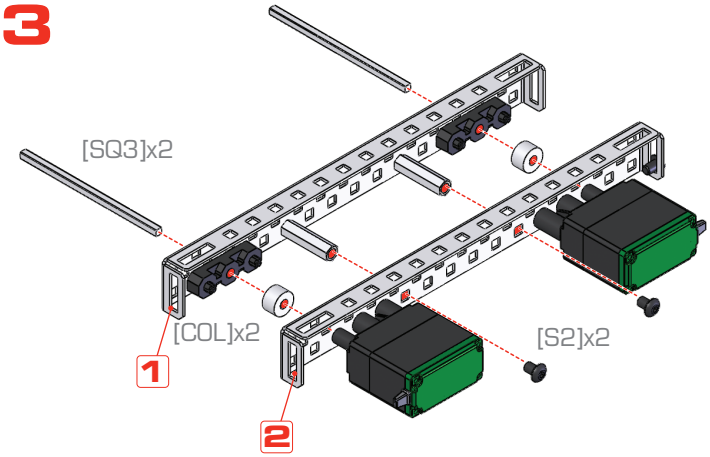

=1

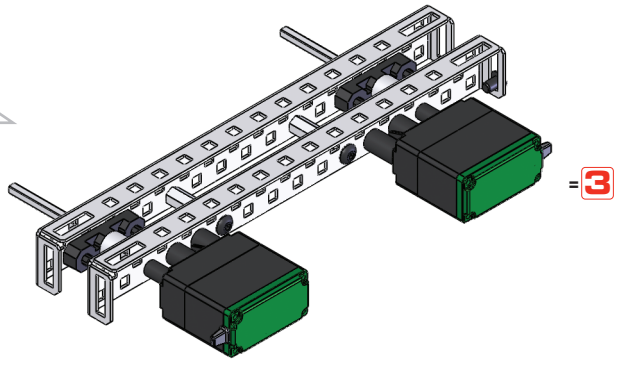
2


[SS2]x4
[MOT]x2
[R15]x1

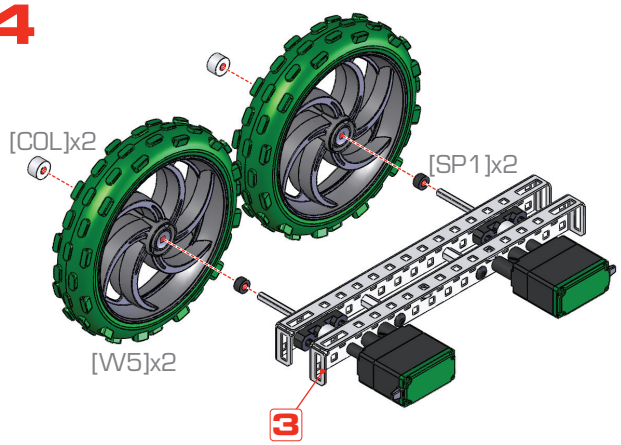

=2

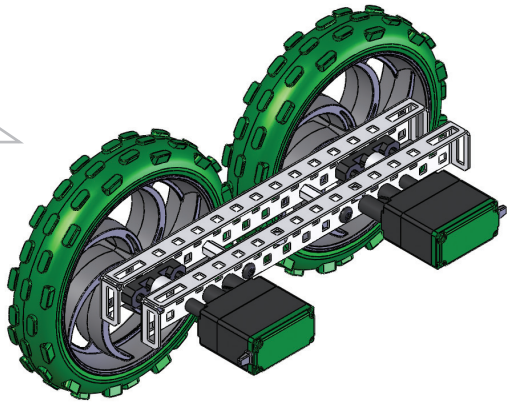
3


[SQ3]x2
[COL]x2
[S2]x2
1
2


=3

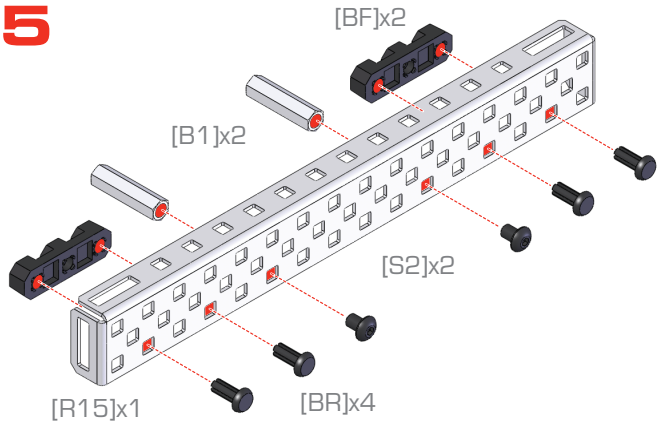
4

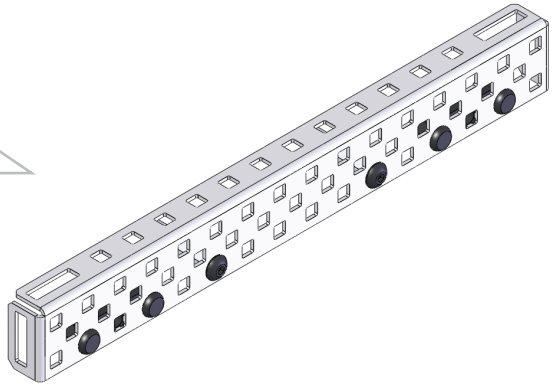




=4

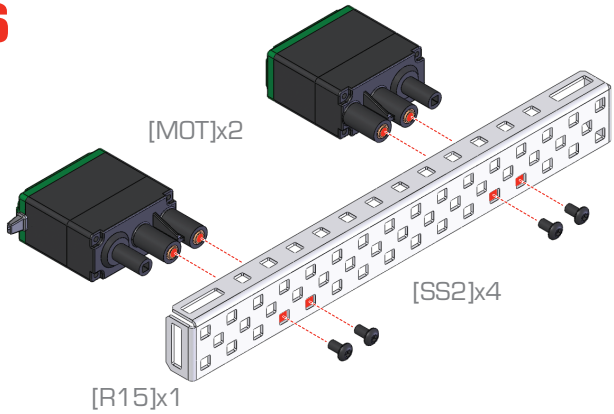
5

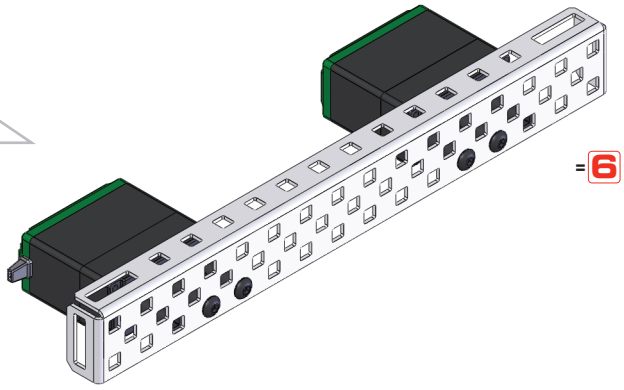




=5

6

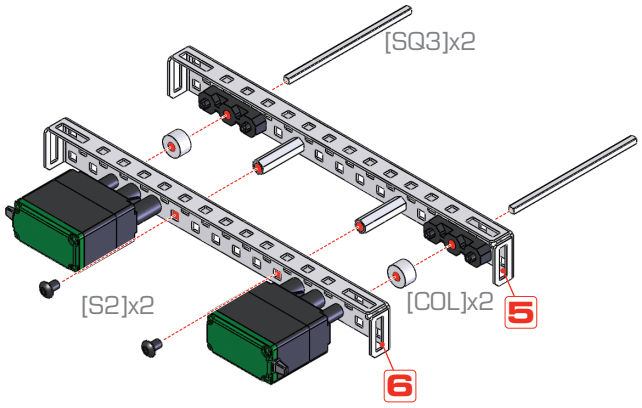


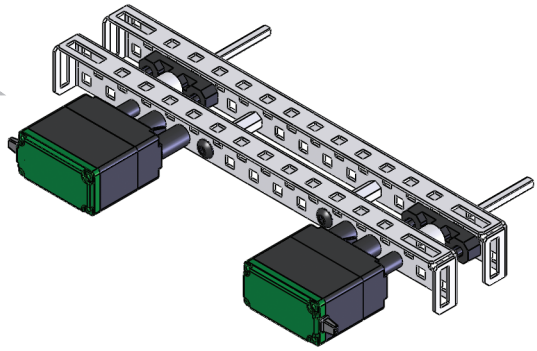


=6

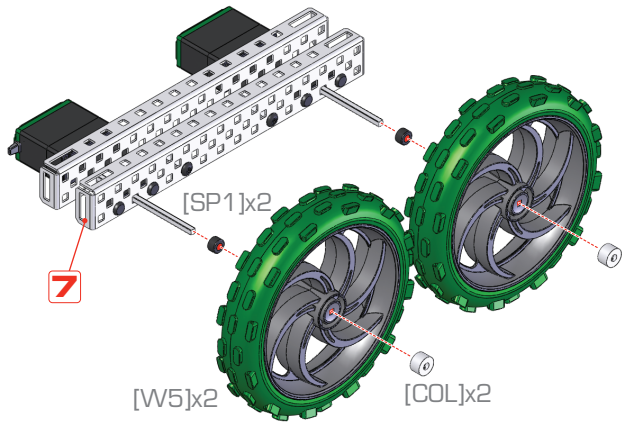
VEX ROBOTICS DESIGN SYSTEM

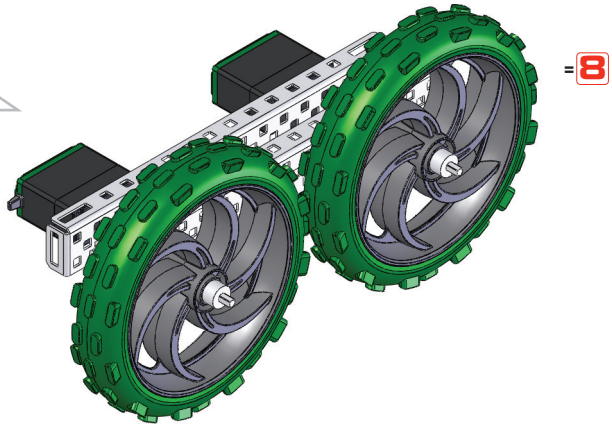
7



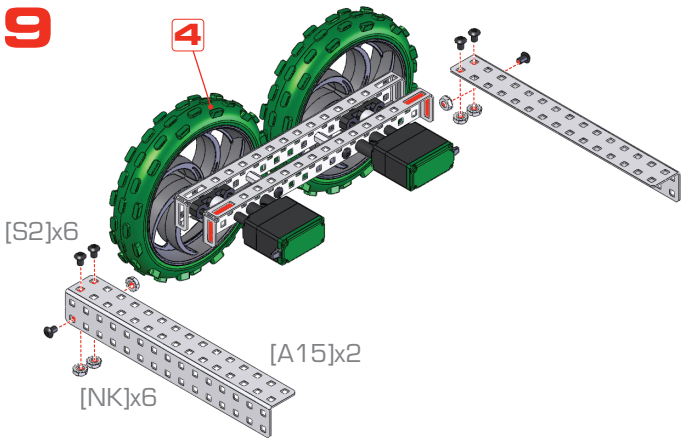


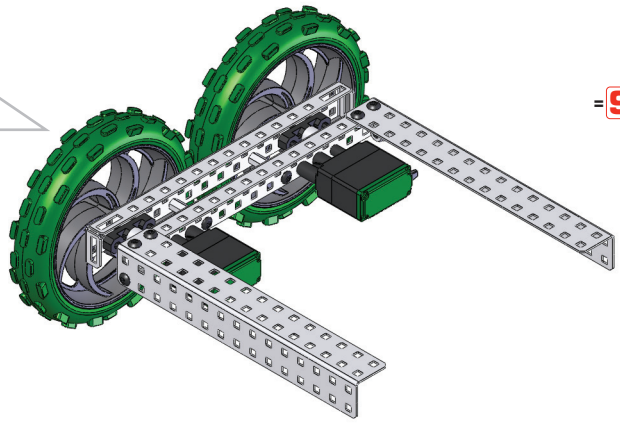
8





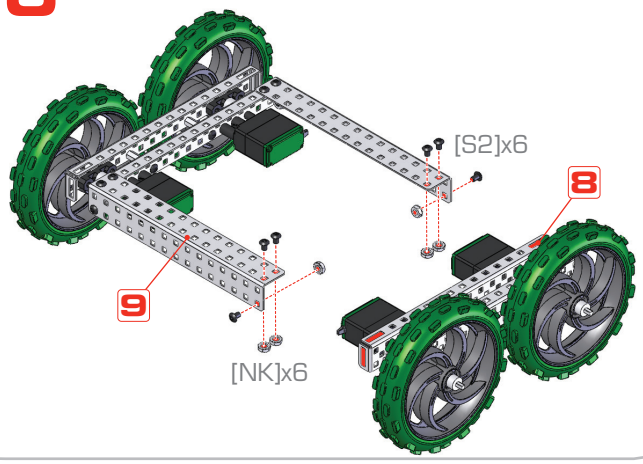
9

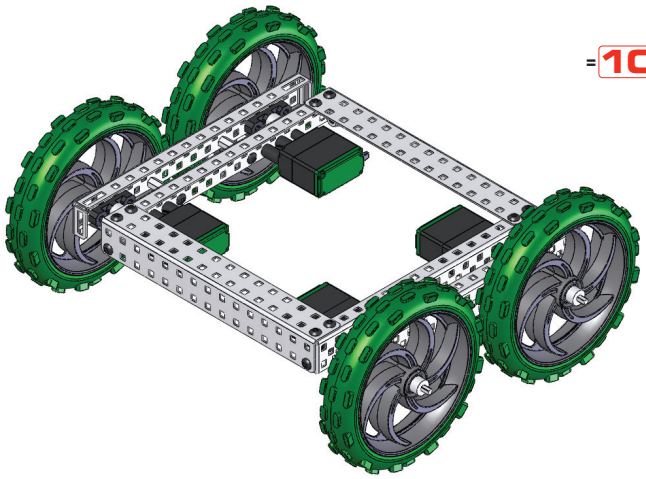




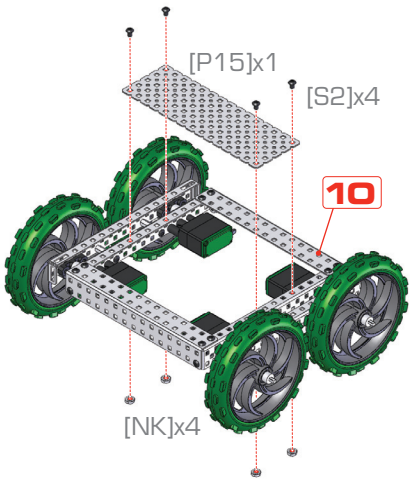
VEX ROBOTICS DESIGN SYSTEM

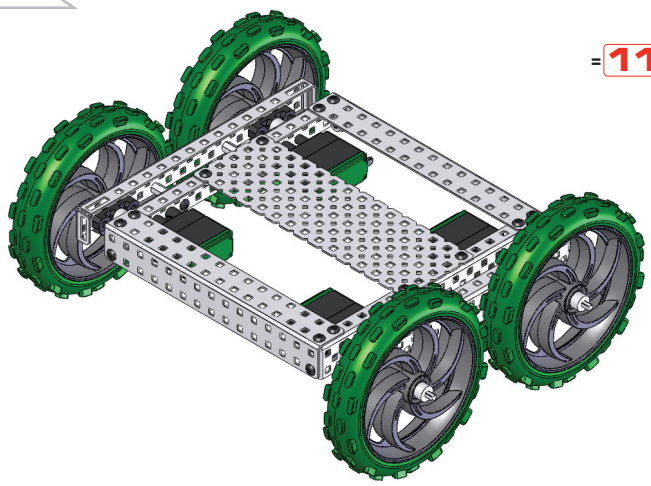
10





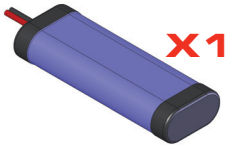
11





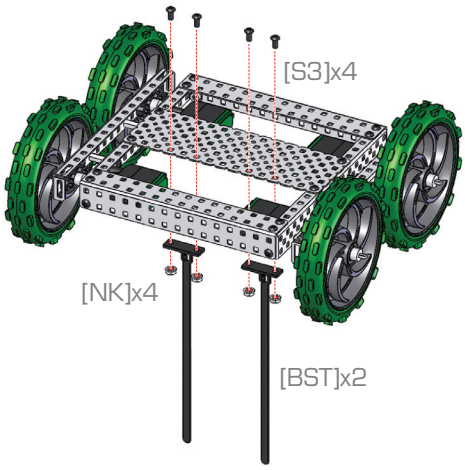
VEX ROBOTICS DESIGN SYSTEM

13-14

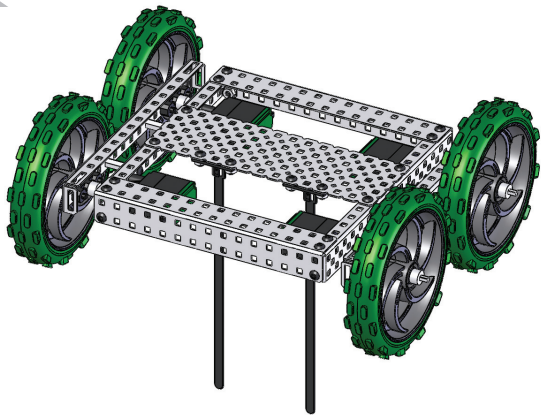


[OPTIONAL]
OR SKIP TO 15

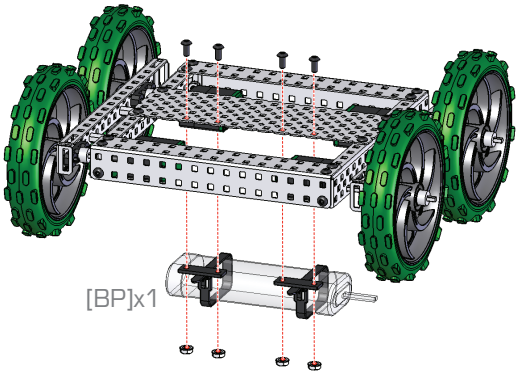
13



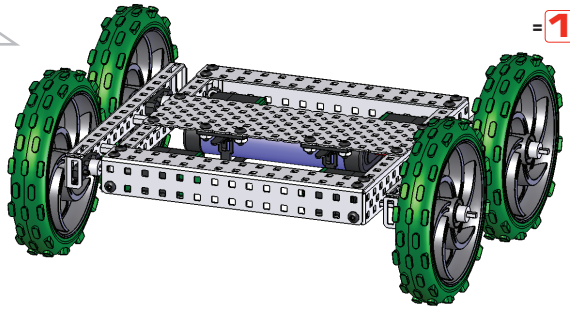
=13



14

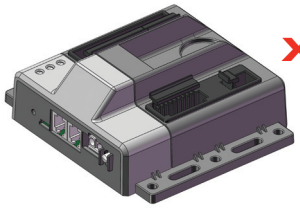


=14



VEX ROBOTICS DESIGN SYSTEM

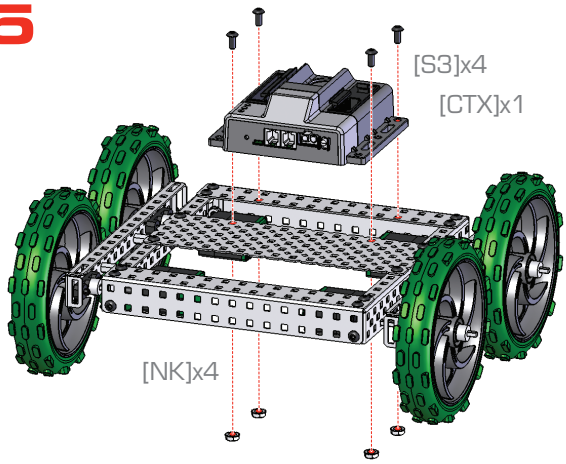
15



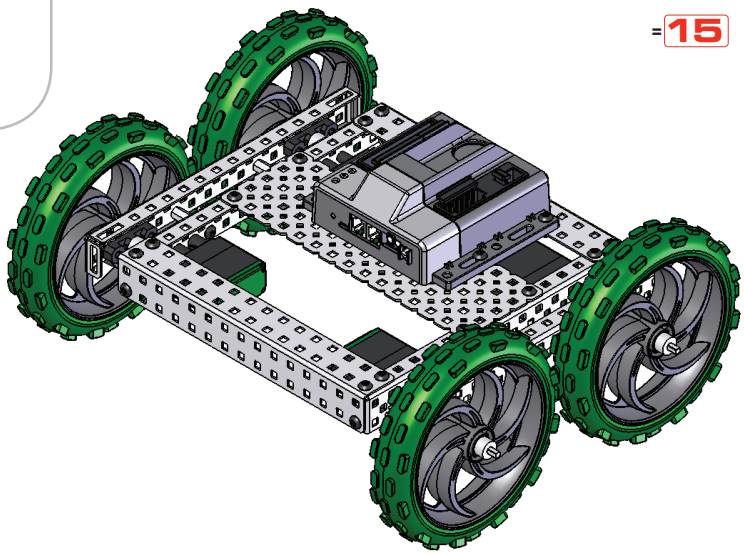
x1

[OPTIONAL]
OR SKIP TO 16

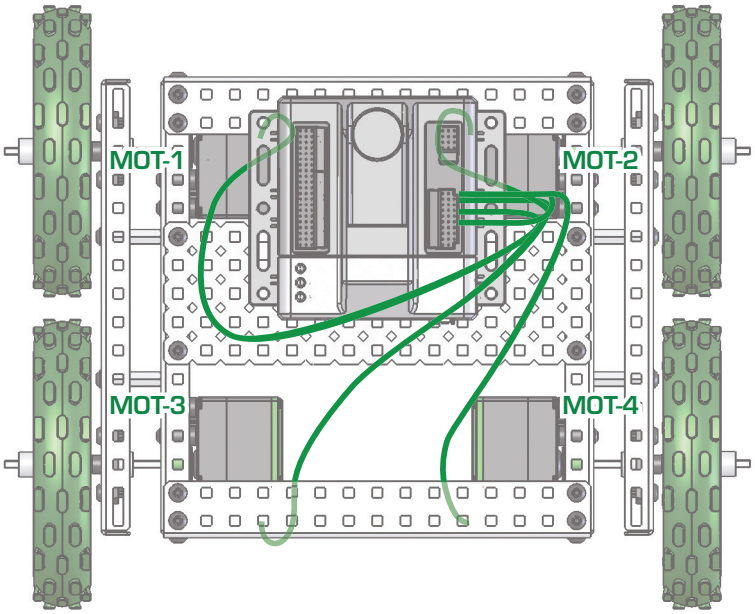
15

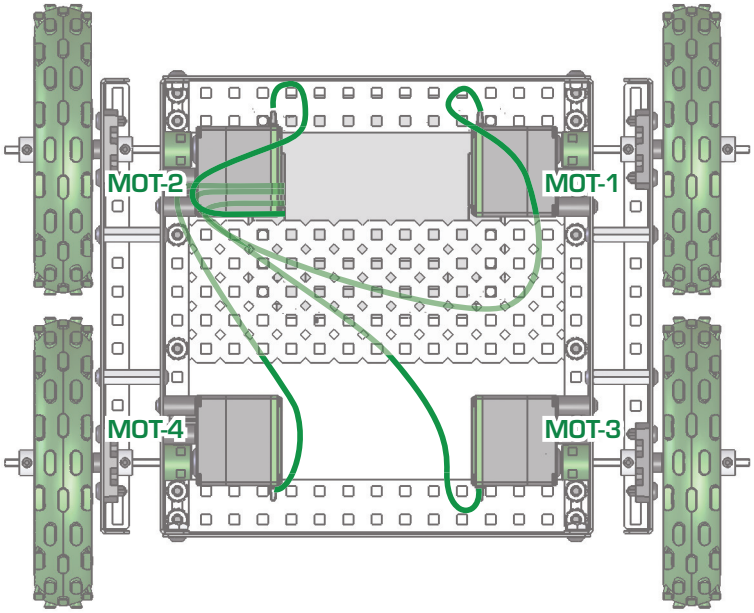


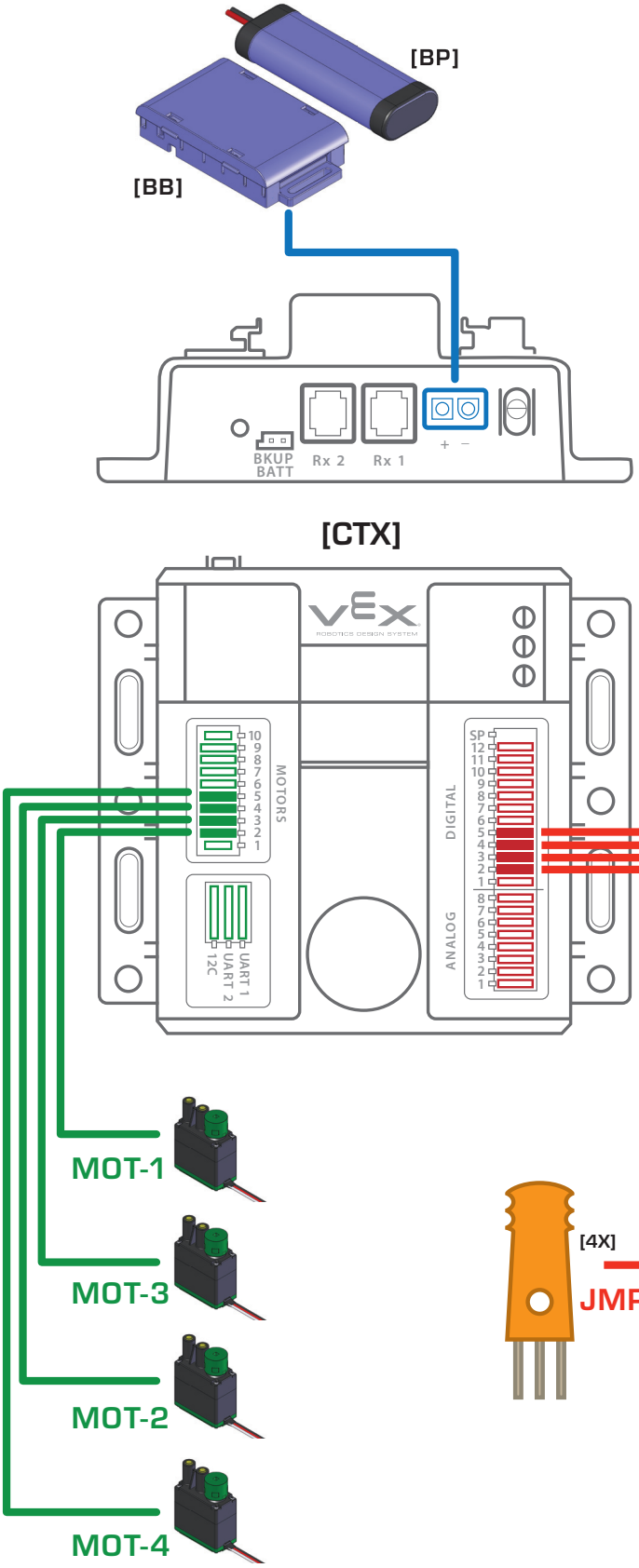
=15



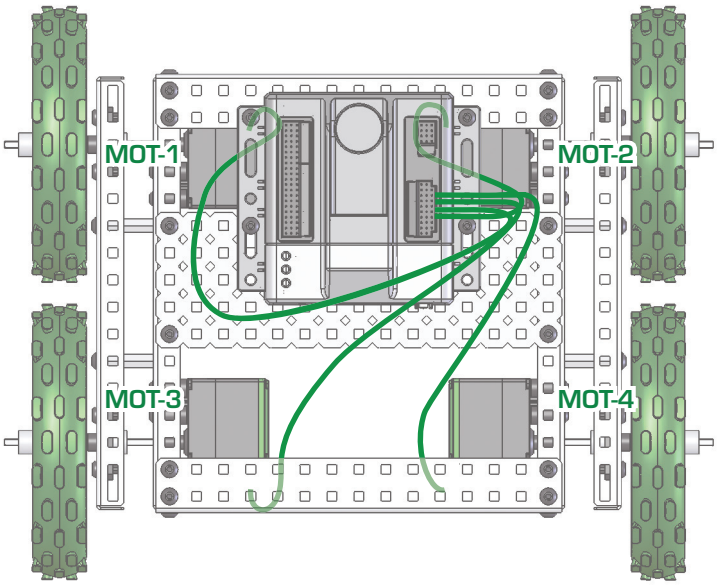
[CTX] WIRING
[3 WIRE MOTORS]

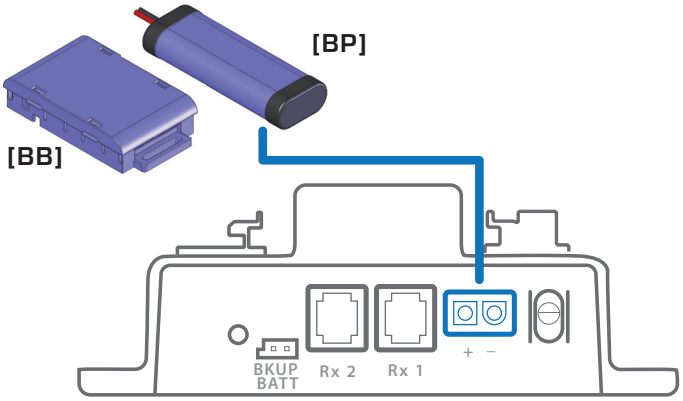


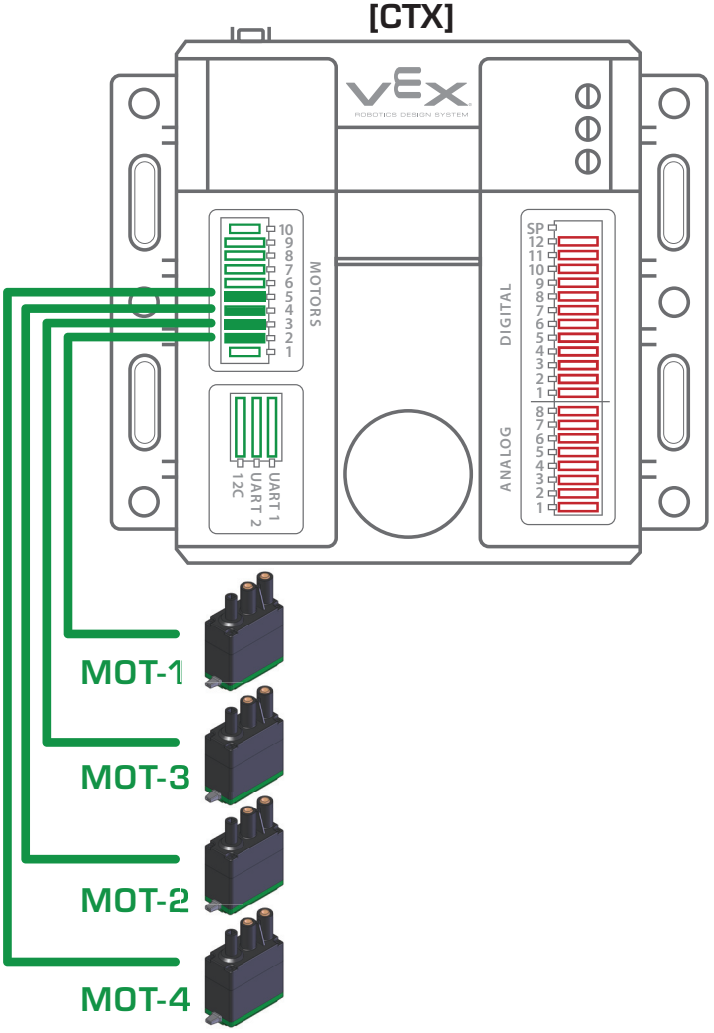


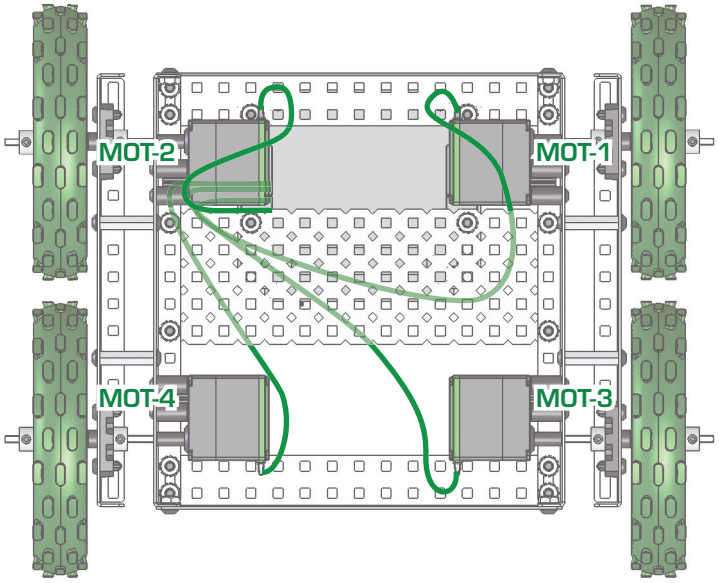


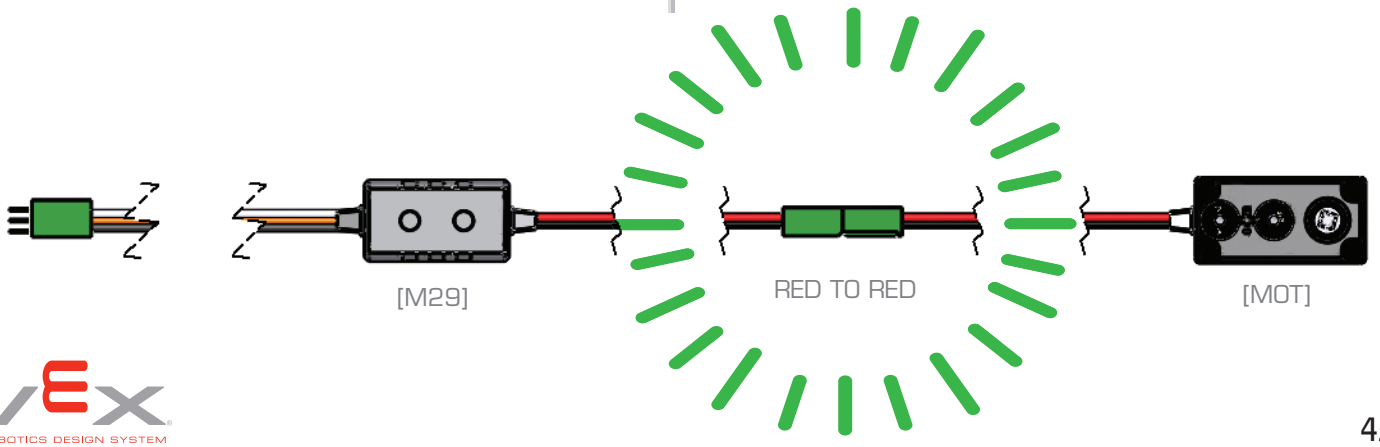
[CTX] WIRING
[2 WIRE MOTORS]



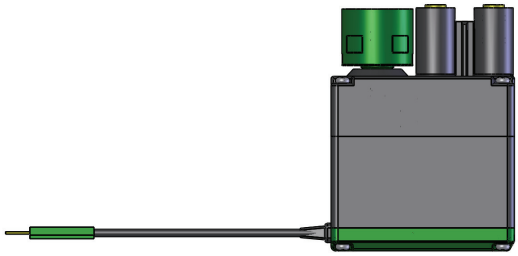








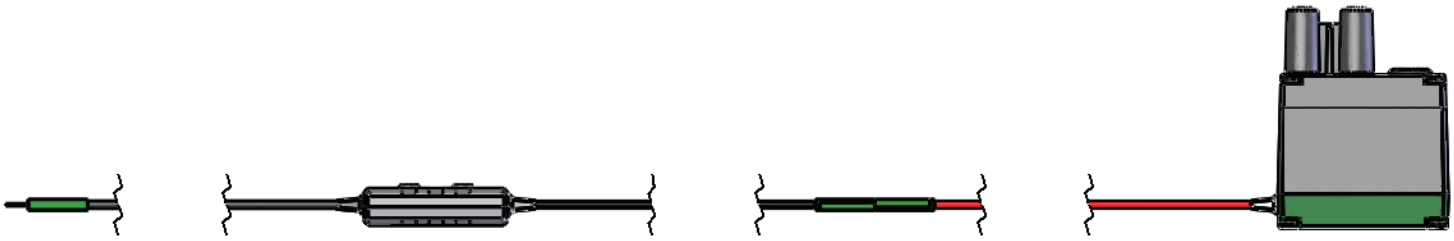
[VMC] WIRING



[MOT]

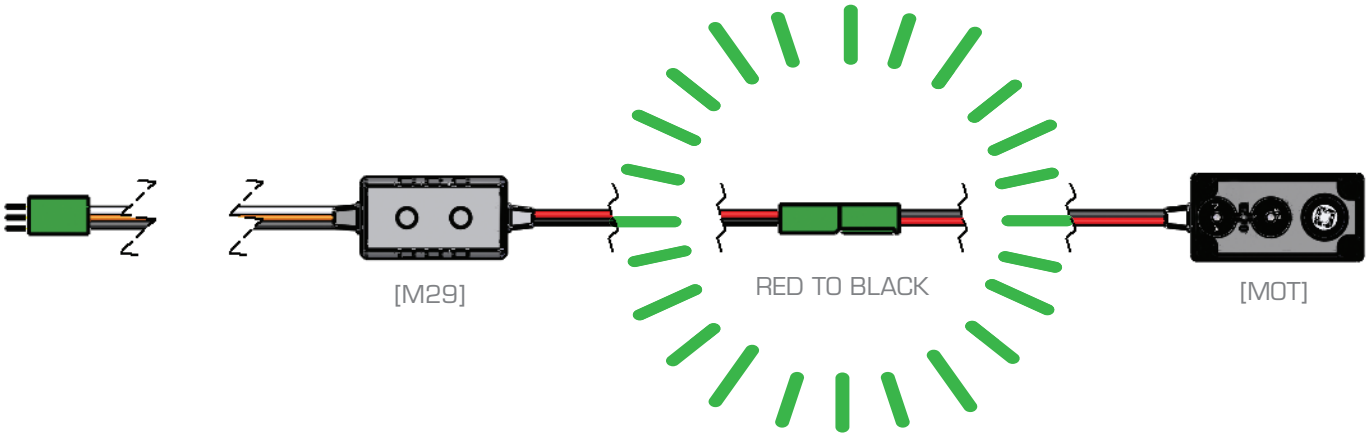
[MOT]

OR



[M29]

[MOT]



[M29]

RED TO BLACK

[MOT]