

A QUICK EASY BUILD THAT CAN HANDLE ALL BASIC SENSORS


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© DESIGNED BY KATHY HOLBERG AND PEGGY REIMERS

**STEP** **1**  
BUILDING INSTRUCTIONS

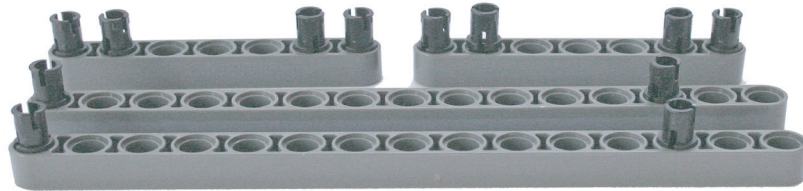
**PARTS NEEDED**

(12) SHORT CONNECTOR PEG  
(2) #7 ROUNDED END BEAM  
(2) #15 ROUNDED END BEAM  
(1) NXT BRICK

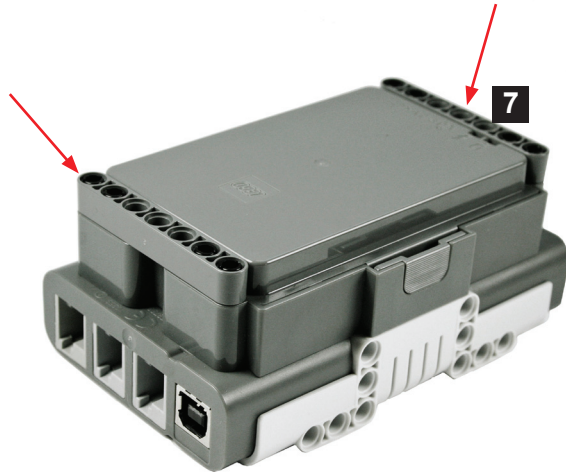


7 15

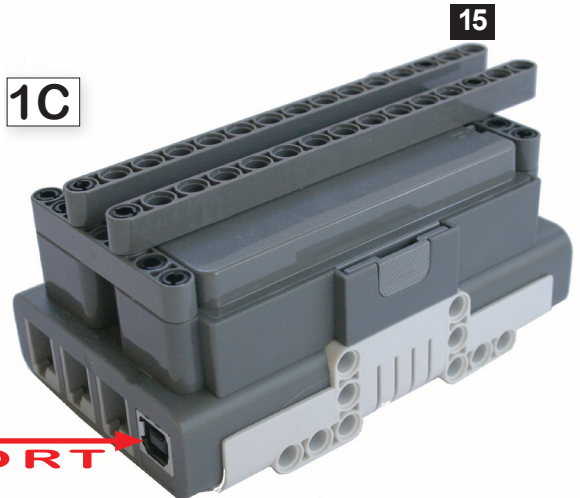
**1A**



**1B**



**1C**

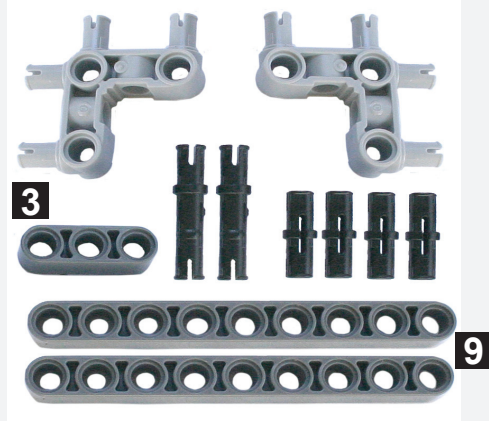


# STEP 2

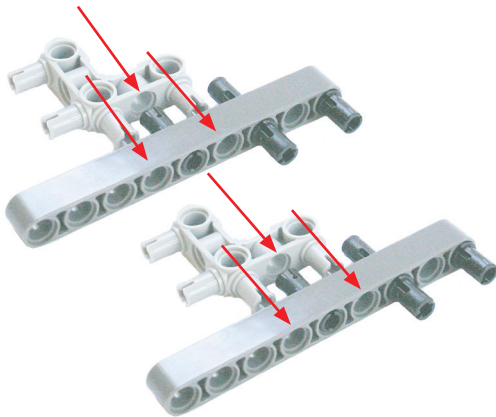
BUILDING INSTRUCTIONS

## PARTS NEEDED

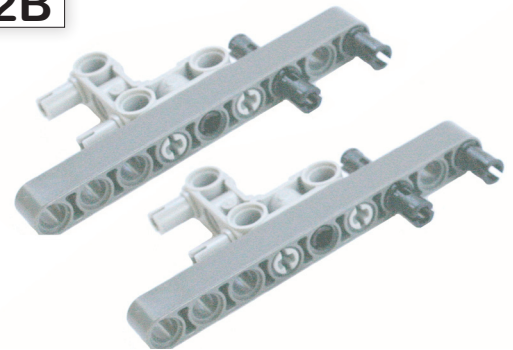
- (2) #9 ROUNDED END BEAM
- (1) #3 ROUNDED END BEAM
- (4) SHORT CONNECTOR PEG
- (2) LONG CONNECTOR PEG
- (2) HASSENPIN



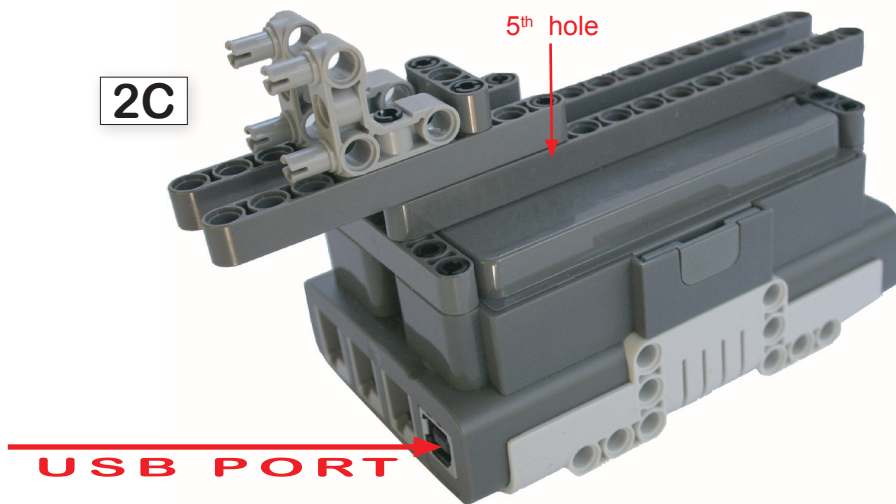
2A



2B



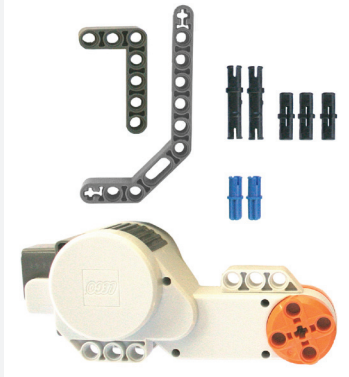
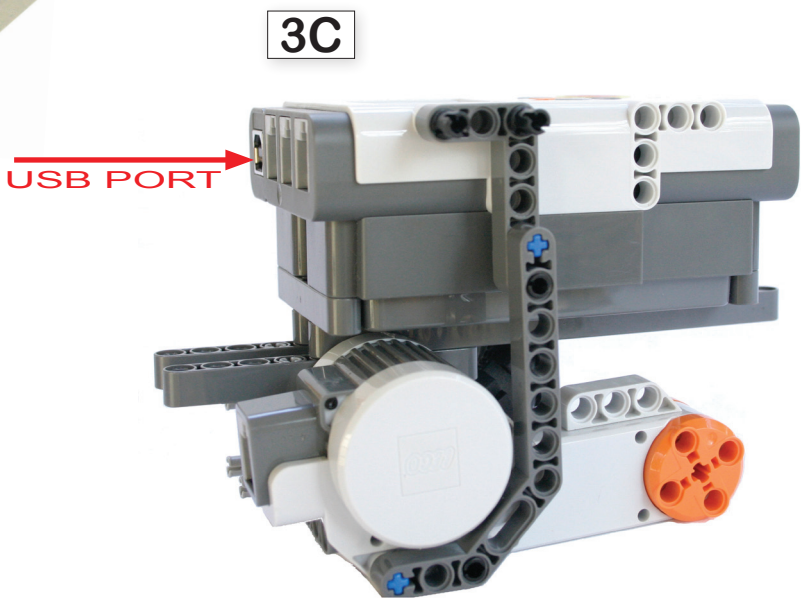
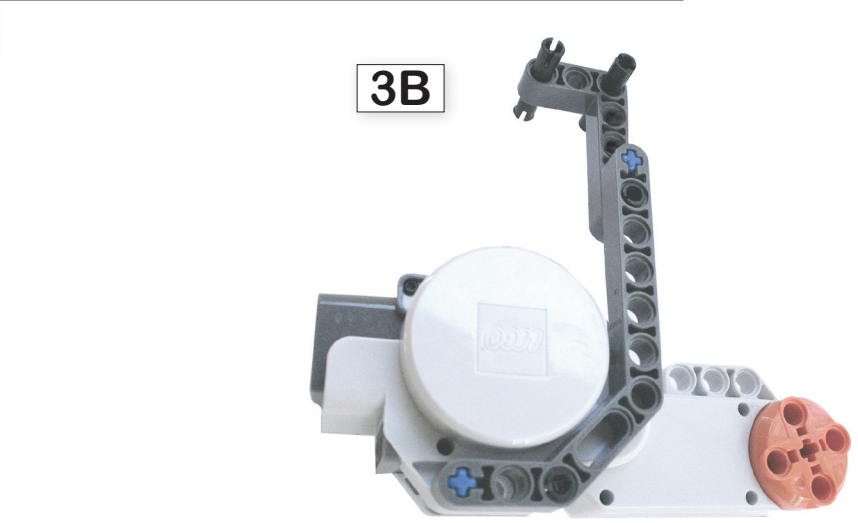
2C



**STEP** **3**  
BUILDING INSTRUCTIONS

**PARTS NEEDED**

- (1) 3X5 ANGULAR BEAM
- (1) 3X7 ANGULAR BEAM
- (2) LONG CONNECTOR PEG
- (3) SHORT CONNECTOR PEG
- (2) BLUE AXLE/CONNECTOR PEGS
- (1) SERVO MOTOR

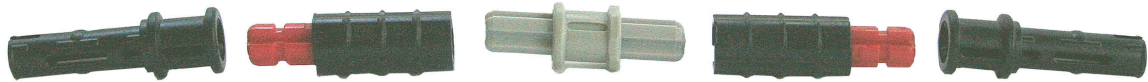
**STEP** **4**  
BUILDING INSTRUCTIONS

**PARTS NEEDED**

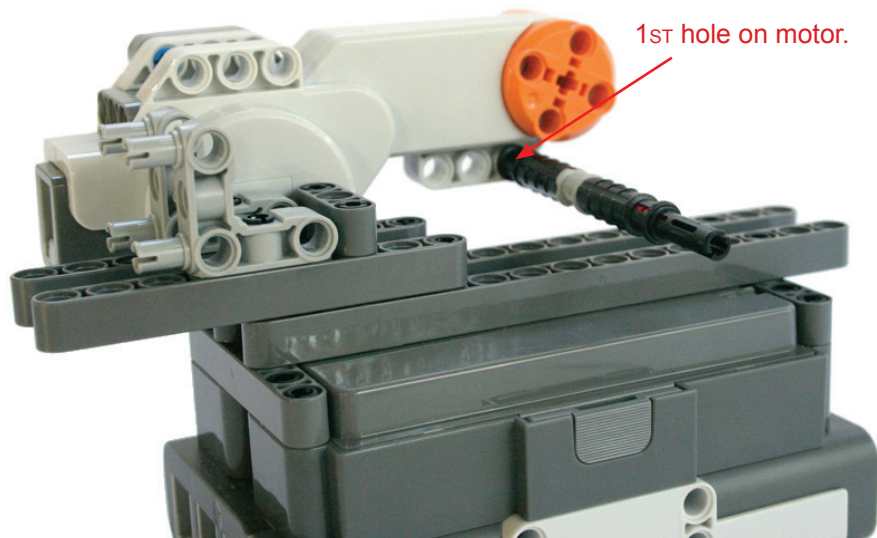
- (2) #2 RED AXLE
- (1) #3 GRAY AXLE
- (2) CONNECTOR PEG WITH BUSHING
- (2) AXLE EXTENDER
- (1) GRAY BUSHING



**4A**



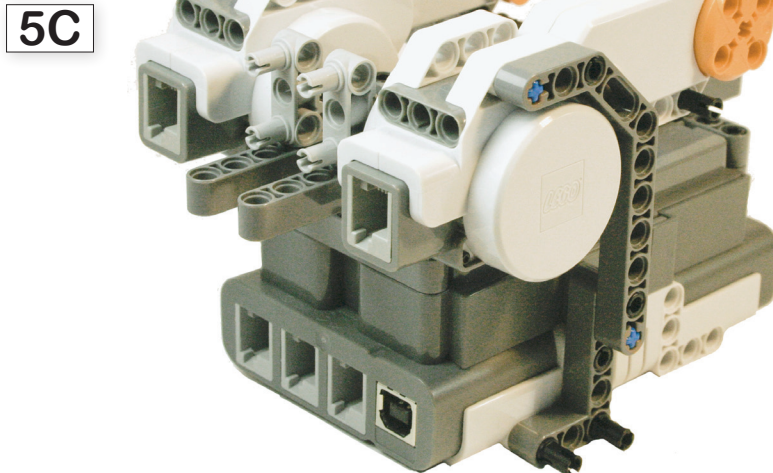
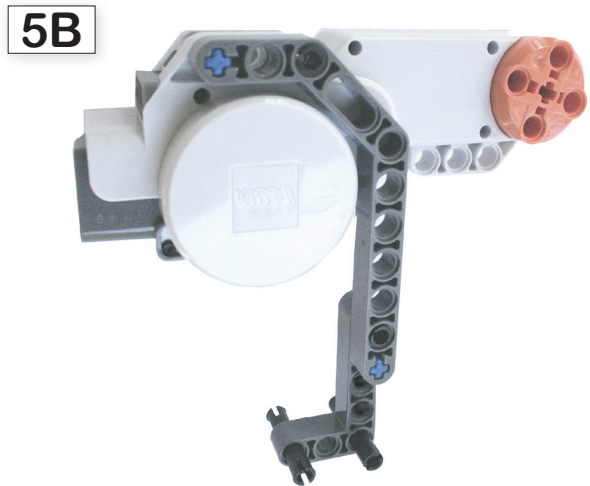
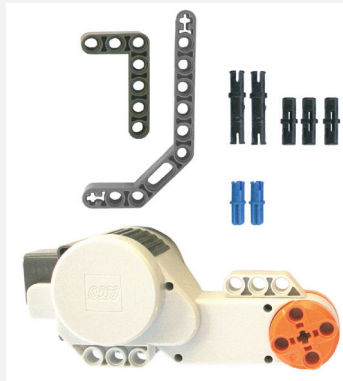
**4B**



**STEP** **5**  
BUILDING INSTRUCTIONS

**PARTS NEEDED**

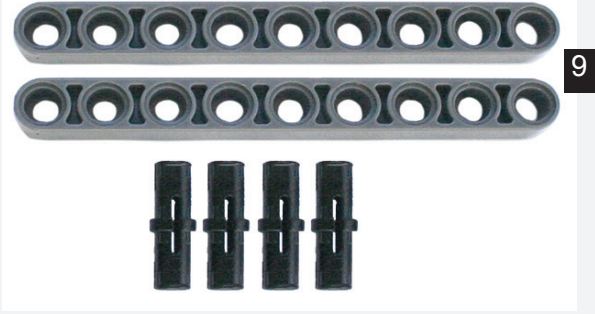
- (1) 3X5 ANGULAR BEAM
- (1) 3X7 ANGULAR BEAM
- (1) SERVO MOTOR
- (2) LONG CONNECTOR PEG
- (2) BLUE AXLE/CONNECTOR PEGS
- (3) SHORT CONNECTOR PEG



**STEP** **6**  
BUILDING INSTRUCTIONS

**PARTS NEEDED**

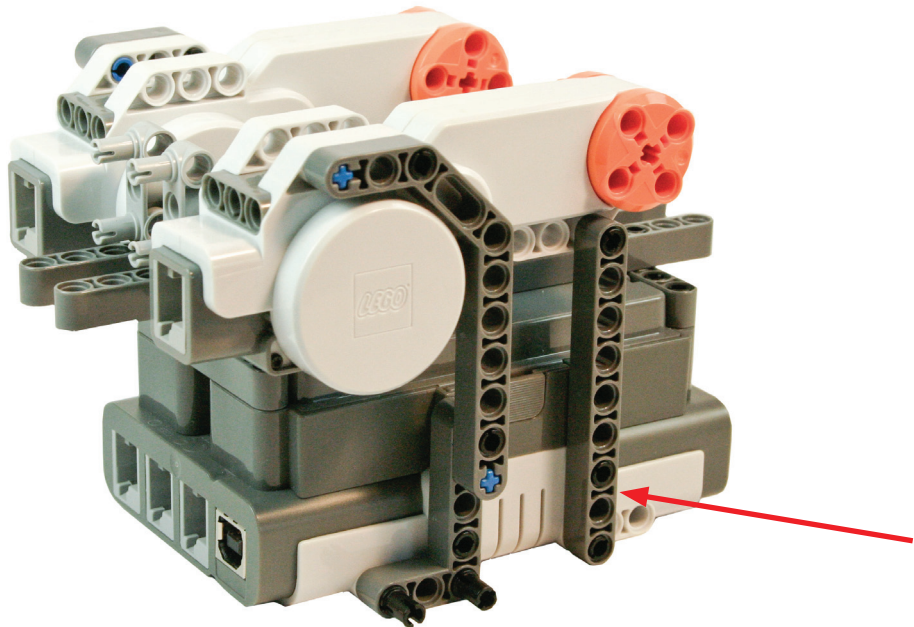
(2) #9 ROUNDED END BEAM  
(4) SHORT CONNECTOR PEG



6A



6B



7

**STEP**  
BUILDING INSTRUCTIONS

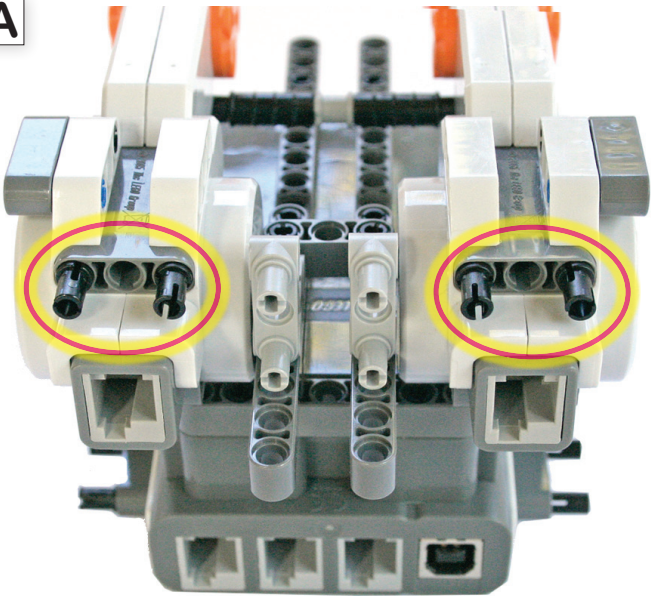
**PARTS NEEDED**

(4) SHORT CONNECTOR PEG  
(1) #11 ROUNDED END BEAM

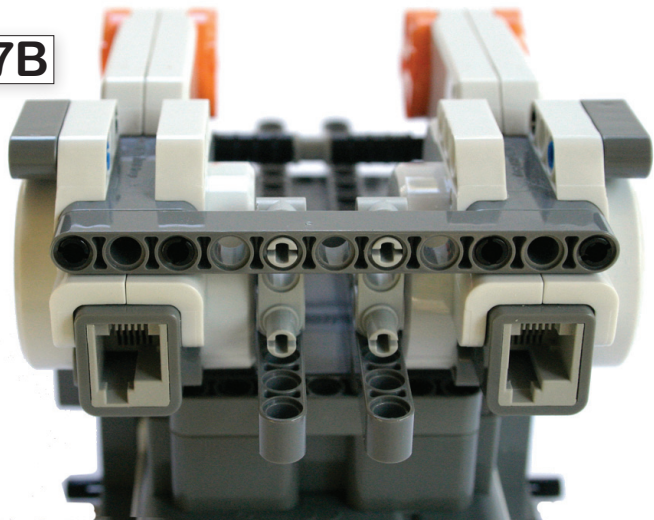


11

7A



7B





**STEP** **8**  
BUILDING INSTRUCTIONS

**PARTS NEEDED**

- (2) #3 GRAY AXLE
- (1) #6 BLACK AXLE
- (1) AXLE EXTENDER
- (2) YELLOW HALF BUSHING
- (1) LIGHT GRAY CROSS BLOCK
- (2) 24X4 GRAY HUB



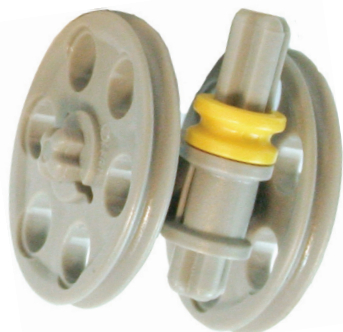
**8A**



**8B**



**8C**



**8D**



**STEP** **9**  
BUILDING INSTRUCTIONS

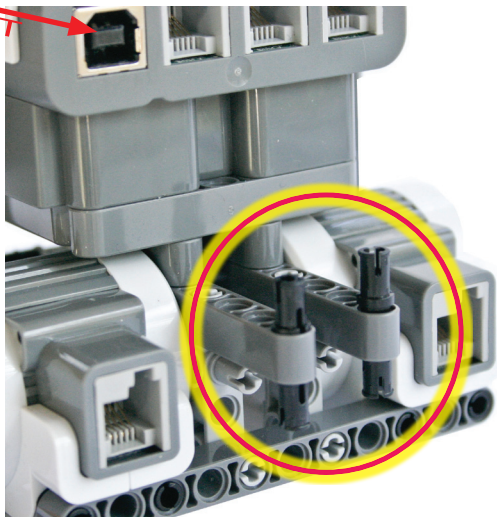
**PARTS NEEDED**

- (2) GRAY BUSHING
- (2) #3 ROUNDED END BEAM
- (2) LONG CONNECTOR PEG

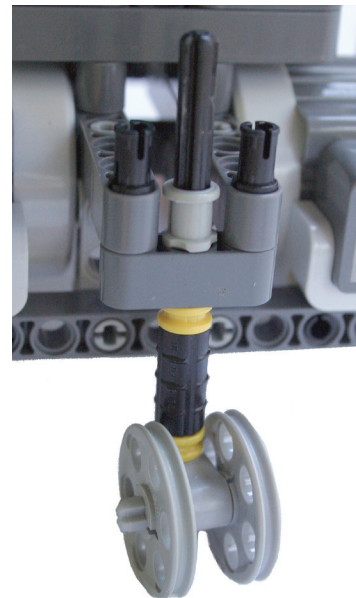


USB PORT

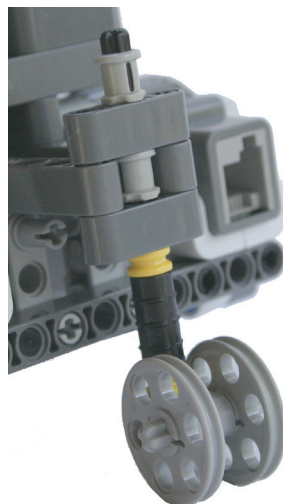
9A



9B



9C



**STEP** **10**  
BUILDING INSTRUCTIONS

**PARTS NEEDED**

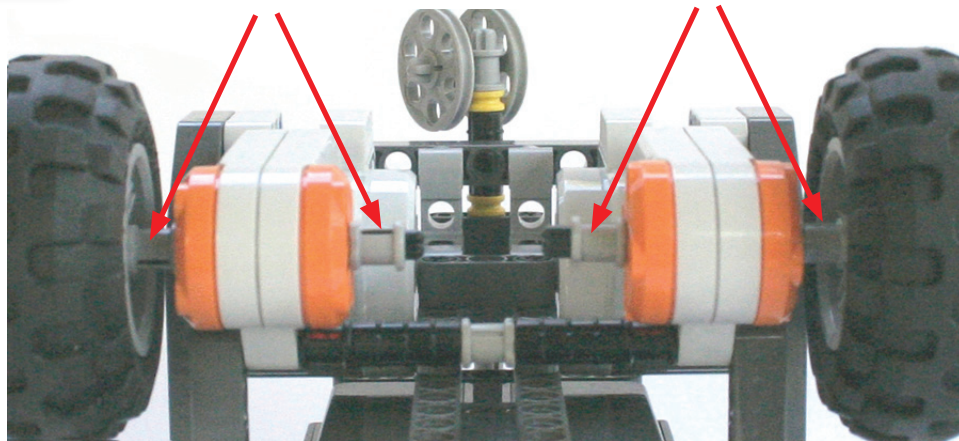
- (2) LARGE HUB AND TIRE
- (2) YELLOW HALF BUSHING
- (4) GRAY BUSHING
- (2) #8 AXLE



**10A**

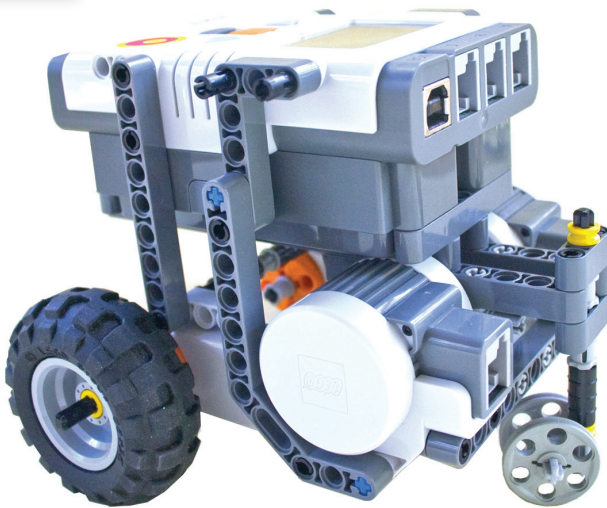


**10B**



## WIRING MOTORS

Use 2 medium (35cm / 14") cables - connect motors to **B** and **C** ports.

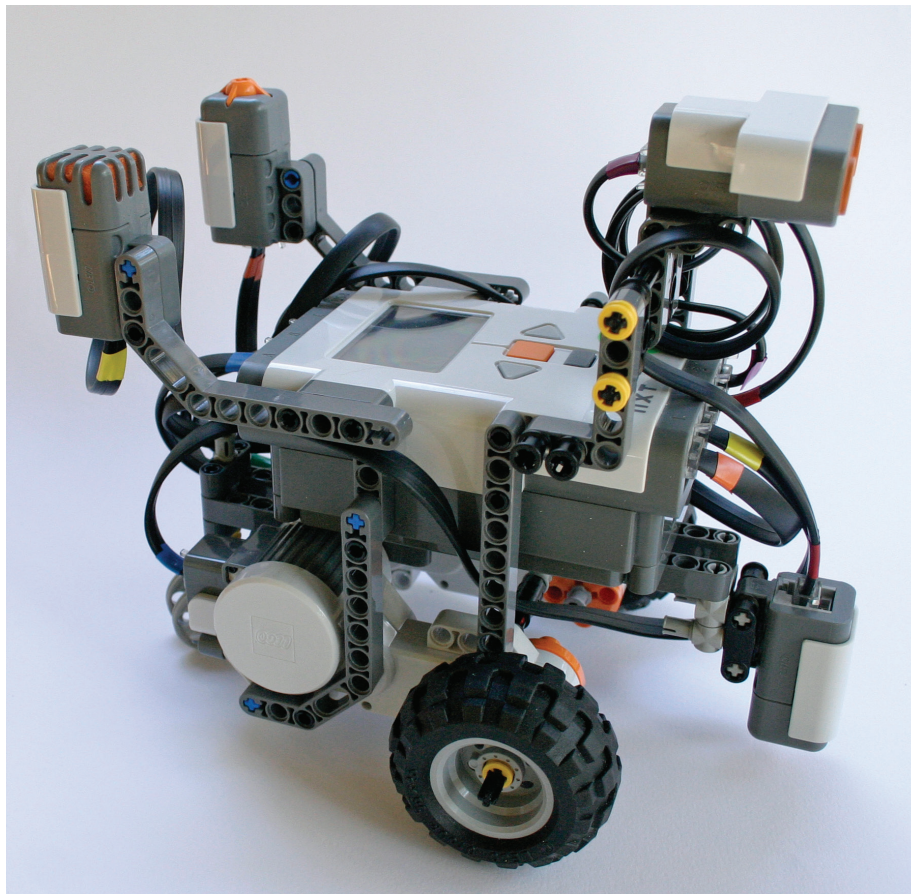
**11A****11B**

## ATTACHING THE SENSORS

- TOUCH SENSOR (PORT 1)
- SOUND SENSOR (PORT 2)
- LIGHT SENSOR (PORT 3)
- ULTRASONIC SENSOR (PORT 4)

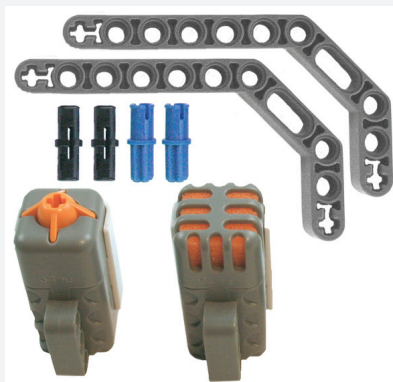


\*LISTED ABOVE ARE THE BASIC SENSORS AND THE DEFAULT PORTS.



**TOUCH AND SOUND SENSOR**  
**PARTS NEEDED**

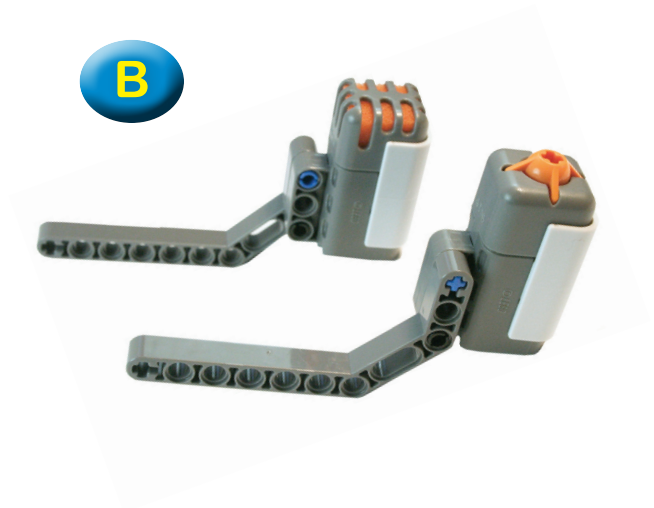
(2) 3X7 ANGULAR BEAM  
(2) SHORT CONNECTOR PEG  
(2) BLUE AXLE/CONNECTOR PEGS  
TOUCH SENSOR  
SOUND SENSOR



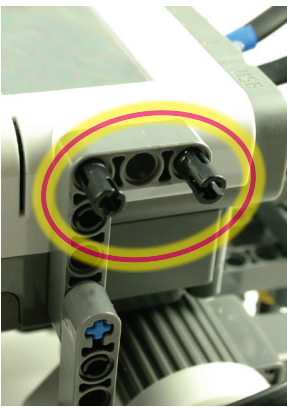
A



B



C



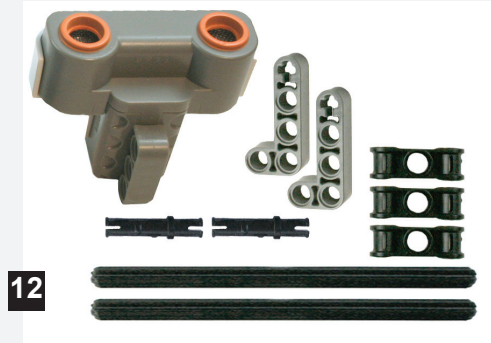
D

Attach the Angular beams to the circled Long Connector Pegs.

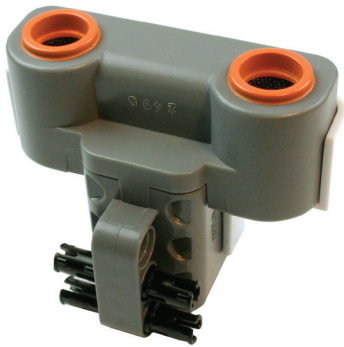


**ULTRASONIC SENSOR**  
**PARTS NEEDED**

- (1) ULTRASONIC SENSOR
- (2) LONG CONNECTOR PEG
- (2) # 12 AXLE
- (2) 2X4 ANGULAR BEAM
- (3) BLACK DOUBLE CROSS BLOCK



**A**



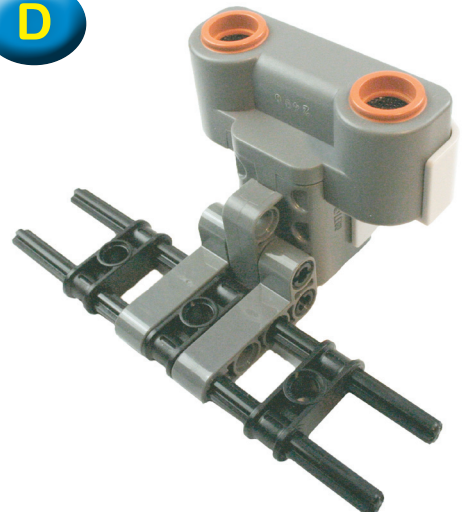
**B**




**C**



**D**



**ULTRASONIC SENSOR****PARTS NEEDED**

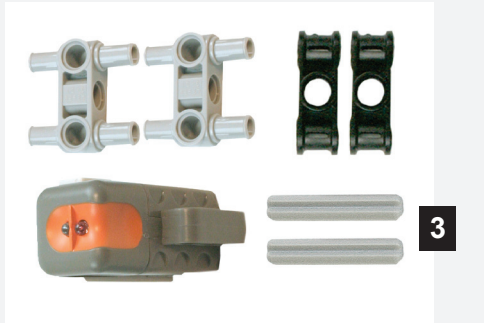
<p>(4) YELLOW HALF BUSHING</p> <p>(2) 3X5 ANGULAR BEAM</p> <p>(4) CONNECTOR PEG WITH BUSHING</p>	
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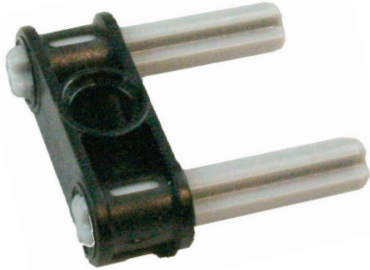


**LIGHT SENSOR**  
**PARTS NEEDED**

- (2) LIGHT GRAY DOUBLE CONNECTOR PEG
- (1) LIGHT SENSOR
- (2) DOUBLE CROSS BLOCK
- (2) # 3 AXLE



**A**



**B**



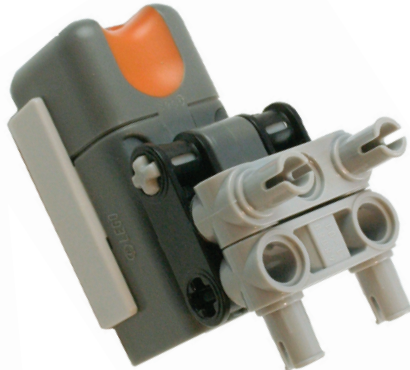
**C**



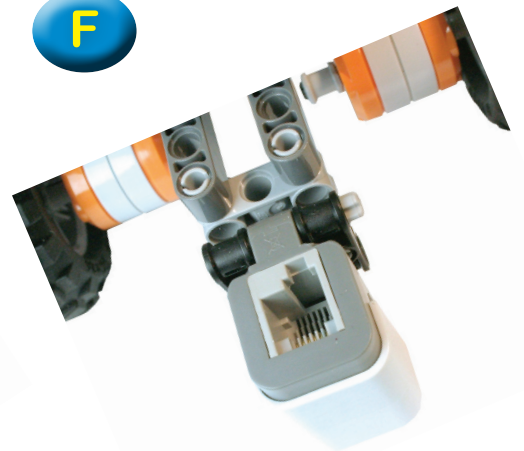
**D**

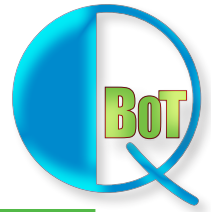


**E**



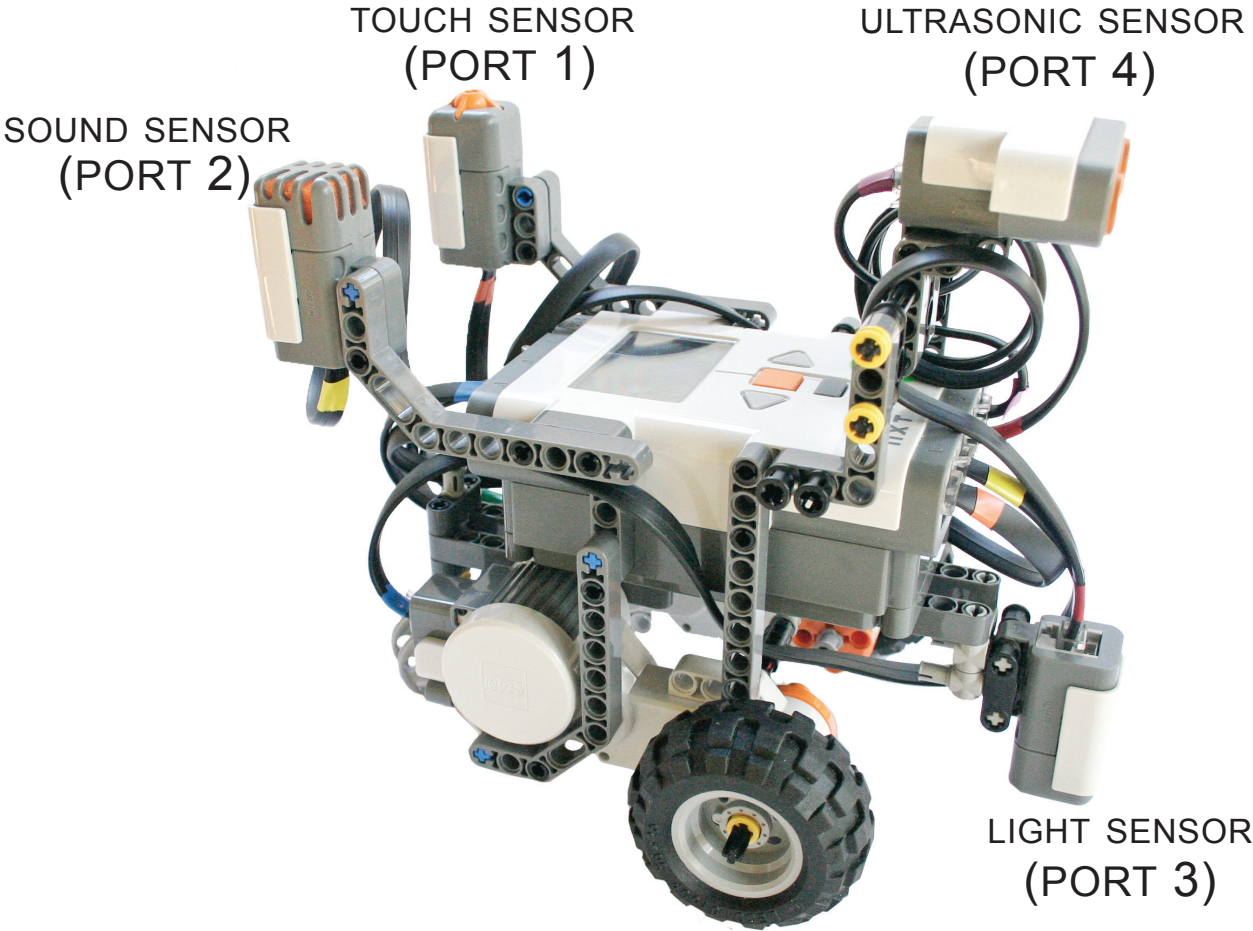
**F**





**ATTACHING THE SENSORS**

**LABELED SENSORS  
ARE CONNECTED TO DEFAULT PORTS**



TOUCH SENSOR  
(PORT 1)

ULTRASONIC SENSOR  
(PORT 4)

SOUND SENSOR  
(PORT 2)

LIGHT SENSOR  
(PORT 3)