

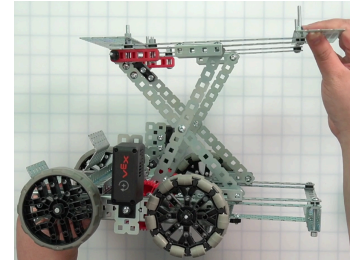
Platform Placer: Lesson 3 – Check Your Understanding

1. Which of the following is NOT true of a lift?

- a. A lift is a mechanism assembled to raise and lower a manipulator off the ground
- b. A lift typically raises objects in a straight vertical line
- c. All lift designs can be powered using only one motor
- d. A lift typically uses a gear or chain and sprocket system powered by a motor or motor group

2. The image to the right shows an example of which of the following lift designs?

- a. Scissor Lift
- b. Telescoping Lift
- c. Cascading Lift
- d. Linear Slide



3. Advantages of a _____ include that it can be powered by one motor and constructed from the pieces in a single VEX EXP Kit.

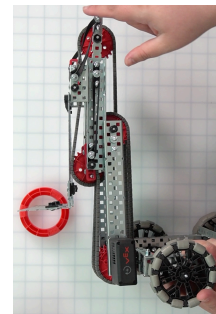
- a. Scissor Lift
- b. Telescoping Lift
- c. Cascading Lift
- d. Linear Slide

4. Which of the following is NOT a consideration when designing a lift for your robot?

- a. How high you need it to reach
- b. The size, shape, or weight of the object being lifted
- c. How much time you have available to construct your design
- d. The color of the objects being lifted

5. The image to the right shows an example of which of the following lift designs?

- a. Scissor Lift
- b. Telescoping Lift
- c. Cascading Lift
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6. Which of the following best describes a motor group?

- a. It is a type of gripper that is used to pick up and transport objects
- b. It consists of two motors that are going to function as if they are one device
- c. It is a decision made from observable and measurable data
- d. It is a device where each motor must be coded individually

- 7. Which of the following is NOT an advantage of using a motor group?**
- a. It enables two motors to be programmed as one device
 - b. It can be controlled using one or two buttons on the Controller
 - c. It makes it more difficult to code your robot to move
 - d. It can make your robot have more power, or lifting ability
- 4. To make a motor group, you must always have two motors that are _____.**
- a. Connected to the same port on the Brain
 - b. Spinning in opposite directions
 - c. Disconnected to each other
 - d. Mechanically connected
- 5. Which of the following is NOT a possible mechanical connection for a motor group?**
- a. Beam and plate
 - b. Gear train
 - c. Chain and Sprocket
 - d. Two motors sharing a shaft
- 6. Which of the following is the correct order of steps to configure a motor group in VEXcode EXP?**
- a. Open the Help; select 'Motion' blocks; then select the [Spin motor] block
 - b. Open the Devices window; select 'Add a Device'; select 'Motor Group'; select the ports on the Brain that your motors are connected to; then select 'Done'
 - c. Open the Devices window; select 'Add a Device'; select 'Bumper Switch'; then select 'Done'
 - d. Open the Devices window; then select 'Controller'
- 7. Which of the following is TRUE of adding your motor group to your Controller?**
- a. You can select the buttons you wish to use to control your motor group, and the direction of movement for those buttons
 - b. The left joystick is automatically selected, and cannot be changed in any way
 - c. You must configure your Controller before configuring the motor group
 - d. The buttons will control the individual motors in the group, not the direction of movement