# Toobox Talks 2018

# Toolbox Talk #3: Lifting the Robot/Heavy Objects

**Date discussed:** \_\_\_\_\_ **Led by:** \_\_\_\_\_ **Reminder:** Always ask if anyone has any suggestions for future talks or the safety program. \*\*For more information on this topic, see the team safety manual\*\*

#### Before deciding to lift the robot, what two things should you look for on the robot?

Make sure the robot is powered off and make sure no one is working on the robot

## What PPE must you have on to lift the robot?

Safety glasses, cut resistant gloves, and close-toed shoes.

## How many people should you have to lift the robot?

Two to Four people.

### What other things must you do before lifting? (4 things)

- •Hold a short discussion about where you are going
- •Make sure the path is clear with no tripping hazards
- •Appoint someone to coordinate the lift
- •Make sure each person who is lifting the robot has their feet close to the robot and in a balanced position

## What things should you do while lifting to robot? What should your stance be like?

- •Lift with your legs and keep your back straight
- •Bend your knees and maintain normal spinal curves
- •Avoid twisting your body and use your feet to turn your entire body
- •Keep a good grip on the robot and only lift from safe and secure points on the robot
- •Tighten your stomach muscles during the lift
- •Keep the robot close to your body and coordinate the speed you and the other lifters are moving, and tell other lifters when the speed needs to be adjusted
- •Make sure the cart is stable and that the robot is correctly placed on it

## How do you enter the field with the robot?

When entering and exiting the field use the gate opening and don't climb over the railing. Wait for the Lights to turn green before entering the field.

### How many people do you need to drive the robot cart? Who should do what?

Have an absolute minimum of two people to drive the cart, but three or more are strongly preferred.

One person should hold onto the handle of the cart, and steer the robot from the back while making sure that the driver station is secure. The second person should be by the front of the cart holding onto the cart and the robot to make sure both are secure and going in the correct direction. The third person should be keeping the path ahead clear, watching out for debris and obstacles ahead, as well as politely clearing a path in crowds.

If people are in the way of the robot cart, how should you tell them to move? Can you yell robot? Do not yell "robot" to clear people out of the way as this is very rude and may startle people, instead a polite "excuse me" is preferred.

How fast should you go if running late/ in a hurry? Even if you are short on time, go slowly. It's better not to get hurt and avoid damage to the robot.

\*Announcement\* I'm planning on introducing some new features to the safety program next week, so veteran members expect change from last year, new members get ready for some new things in safety! ©

Members Present For Talk	Additional Notes
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