

## **ROLES**

**ELISE:** program team\_\_ person\_\_

**KYLE:** program team\_\_ person\_\_

**LINDSEY:** Narrator

**MARC:** Referee

**JEANNETTE:** program team\_\_ person\_\_ (*brings in attachments*)

**MICHAEL:** program team\_\_ person\_\_

**DAVID:** program team\_\_ person\_\_

**KAUSTUBH:** program team\_\_ person\_\_ (*Brings in binder and gives it to judge*)

**KRIS:** program team\_\_ person\_\_

**ALEX:** program team\_\_ person\_\_ (*brings in robot*)

## **WHOLE TEAM:**

Enters judging room **SILENTLY**

## **LINDSEY:**

(Walks to center front) This is team 3837, NXTreme. I am Lindsey.  
May we show you all of our programs? <sup>1</sup>

## **KAUSTUBH:**

Here is our technical binder (*Gives judges technical binder*)

## **LINDSEY:**

Program team 1 person A and Program team 1 person B will be running program 1 (steps off to side)

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<sup>1</sup> If the judges say no, Lindsey will ask how many programs they can show. The programs will be prioritized in this order:

1. PROGRAM\_\_
2. PROGRAM\_\_
3. PROGRAM\_\_
4. PROGRAM\_\_

Lindsey will introduce program teams in this order if and ONLY IF, the judges do not permit all four programs to be run.

## **PROGRAM TEAM 1:**

Person 1 will set robot up

Person 2 will narrate, key points for program 1 are:

-specialized jug knocks insulation down before robot

-Jig will open window and turn off lights simultaneously

-People in a breakaway jig that will come off as robot rams into wall, thus killing the people, uses touch sensor to tell when it has hit the wall

-Lifts floodgate with a an adjustable attachment that will forgive inaccuracy

-Removes the balls thus freeing up the field

-Has a button so it can go back out to get laptop and then deliver it to house

## **MARC:**

(Will act as the referee removing all pieces that need to be removed)

## **LINDSEY:**

Program team 2 person A and Program team 2 person B will run program 2

## **PROGRAM TEAM 2:**

Person 1 will set robot up

Person 2 will narrate, key points for program 2 are:

-A non-motorized device activated by hitting the carbon reservoir and dumps the carbon

-Push a button so it can do the storm

-Has an arm with a stop so it stops in the same place consistently and is at the proper level to pick up the ice buoy, the stop hits the touch sensor to stop arm

- Delivers the levees and people

## **MARC:**

(Will act as the referee removing all pieces that need to be removed)

## **LINDSEY:**

Program team 3 person A and Program team 3 person B will run program 3

### **PROGRAM TEAM 3**

Person 1 will set up robot

Person 2 will narrate, key points for program 3 are:

- Has a polar bear neck ring that holds polar bear and a pitchfork to deliver all the things to research area
- Uses touch sensor to lower arm to correct place
- Uses prongs to get ice core

### **MARC:**

(Will act as the referee removing all pieces that need to be removed)

### **LINDSEY:**

Program team 4 person A and Program team 4 person B will run program 4

### **PROGRAM TEAM 4**

Person 1 will set up robot

Person 2 will narrate, key points for program 3 are:

- Uses light sensor to know how far it is from wall
- Uses jig to raise house
- backs into black line using light sensor
- Has really cool alignment attachment
- lowers arm at green line with hook until stop and gets ice drilling machine
- Ends in research area allowing arm to get points

### **MARC:**

(Will act as the referee removing all pieces that need to be removed)

### **LINDSEY:**

(walks to front center) Thank you. The most notable features of our robot are:

- The robot uses alignment jigs to counter unreliability of robot/differences in mat ect.

-Missions were grouped into four program groups by proximity and attachments (ex. Two missions need the pitchfork and are at the far end of the mat are grouped together)

-Uses Light touch and rotation sensors to help in navigation and consistency

-Uses stops to standardize the heights of the arm attachments

-A geared four wheel drive robot and has a third geared motor to allow motorized attachments

-3/4 programs start in same position to minimize error in setup

-The alignment attachment can be set by user as a mechanical solution

-Some attachments remain on robot to minimize setup time

-Uses wheel runners and the wall to keep going straight along the walls

-Uses the walls to tell where it is  
Do you have any questions?