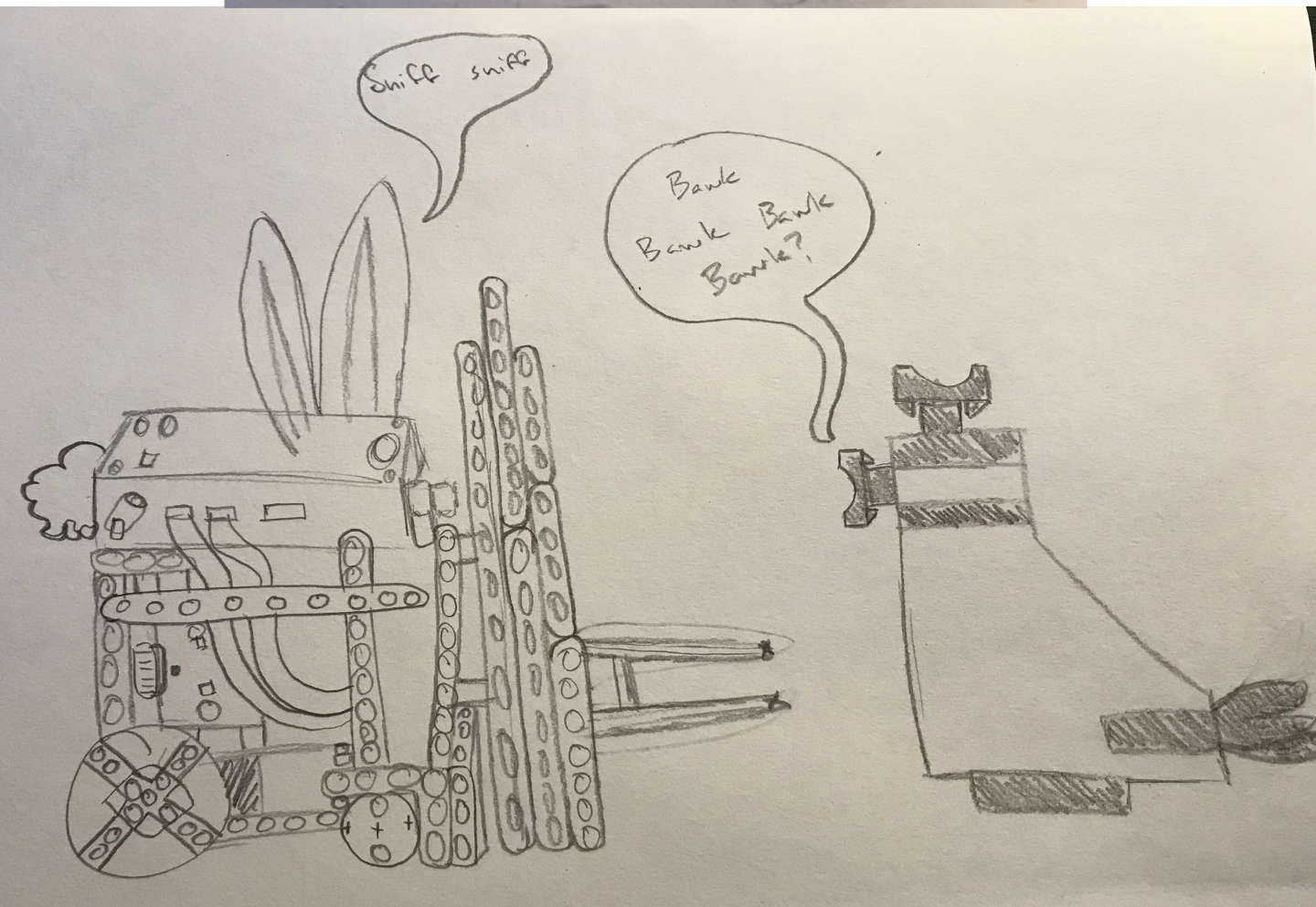
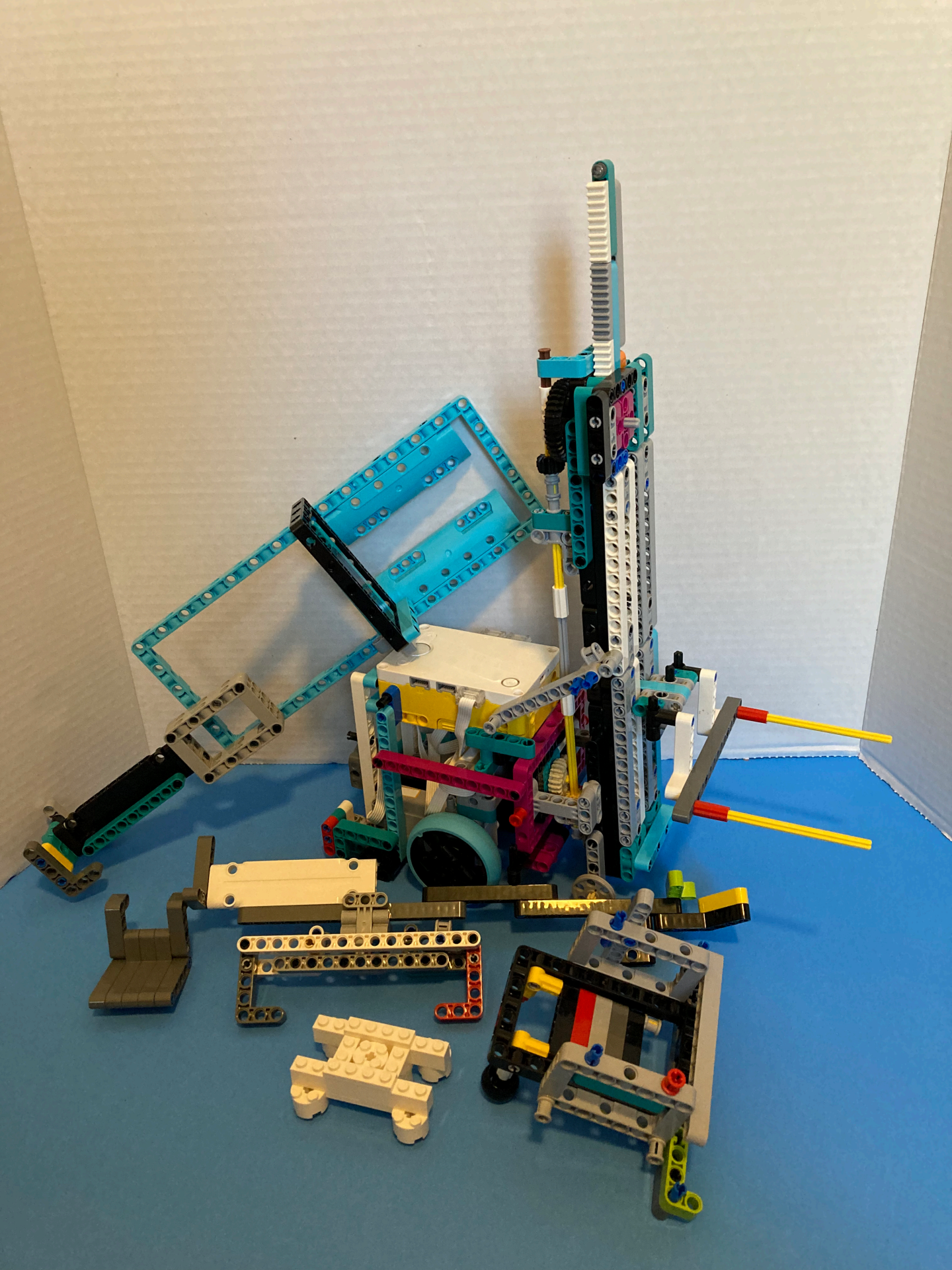
48201 CycloneBots
Robot Design – “Chicken”





FIRST LEGO LEAGUE

Robot Design Summary

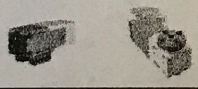
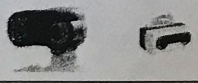
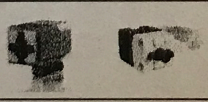
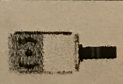
Team Number: 48201

Team Name: Cyclonebots

*** Please save and upload to the Google Drive folder for your team ***

Robot's Name	chicken				
Favorite Mission	M03	Maximum Score	30	Typical Score	30
Favorite Robot Feature	Rackand pinion	Most Innovative Robot Feature	Rack and pinion		
How often does your robot or its attachments break? *(Circle One)*	☐ Frequently ☐ Fairly Often ☐ Occasionally ☒ Almost Never				
How often does your robot get stuck on the field and you have to retrieve it by hand? *(Circle One)*	☐ Frequently ☐ Fairly Often ☒ Occasionally ☐ Almost Never				
Strategy *How did you choose the missions you worked on?*	we choes them based on the directness to the mission, and how consistent we could make it. We also voted on it as a team.				

How many Motors and Sensors are on your robot?
(See the Robot Game Rules for allowable types)

Large Motors	Medium Motors	Color / Light Sensor
 0	 3	 0
Distance Sensor	**Touch Sensor**	**Gyro / Angle Sensor**
 0	 0	 1

Design Process

Design Process - be prepared to discuss what processes you used to design your robot and how you followed the Engineering Design Process (Explore -> Imagine -> Create -> Test -> Improve)?

our Design process was the need for vertical movement, so we built the Rack and pinion. all of our attatchments slid on and off so we could reduce the time for putting on and off attachments. the reason why we did not use the sencors is because we did not have much time we created two code blocks for absolute left and right turns, based on yaw. we put both the motors on top of echother, so it is smaller. we added a steel marble as a counter weight. we made no horisantal movement

FIRST LEGO LEAGUE

Robot Design Summary

Team Number 48201

Team Name Cyclone bots

***** Please save and upload to the Google Drive folder for your team *****

Program Summary

What can your robot do? List every program you plan to run during the tournament. Attach additional pages if needed.

Programming Language Used: ☐ LEGO MINDSTORMS EV3 or ☒ SPIKE OTHER_____

Program Name	Mission(s) Accomplished	Robot Actions	Attachments Used	Program Structure (Architecture)	Mechanical and/or Sensor Feedback Used	Mission Success Rate
What is this program called in your robot?	*List the missions your robot will accomplish when you run this program.*	*List the types of actions performed during this mission (Forward / Turn / Lower attachment / etc.) You may include a more detailed outline and/or path diagram on a separate sheet.*	*Do you add anything to your robot while running this program?*	*List the types of programming commands used [actions (start motor, read sensor, etc.), loops, do until, switches (if-then), subroutines (MyBlocks), parallel programs, etc.]*	*Does your robot make decisions based on input from a sensor or mechanical feature? If yes, explain how the input is used.*	*How often does your robot accomplish the mission(s)? Show the Judges any data you collected from your trial runs!*
EXAMPLE *From HYDRO DYNAMICS℠*	***Fountain***	***Drive forward. Lower arm to release Big Water. Reverse back to base.***	***Arm***	***Forward in Rotations***	***None***	***Fairly Often (85% from data)***
48201_2 final	unload cargo plane	forward R3p Down, ~~turn~~ back, turn, Right, turn around, go home	walrus teeth	forward in cm, turns in absolute turns Backward in cm	NOPE	100%
48201_2 final	deliver crates to circles (M16)	forward, backward	walrus teeth	forward in cm. backward in cm.	N/A	99%
48201_3 final	Home delevery	forward, exact turn using yaw, backwards.	Catapult	forward in cm back in cm turns in absolute using yaw.	N/A	90%
48201_4 final	Inovation project delevery (	forward, exact turn using yaw, backwards	walrus teeth	forward in cm back in cm turns in absolute using yaw	N/A	100%

Robot Design Summary

Team Number 48201

Team Name CYclonebots

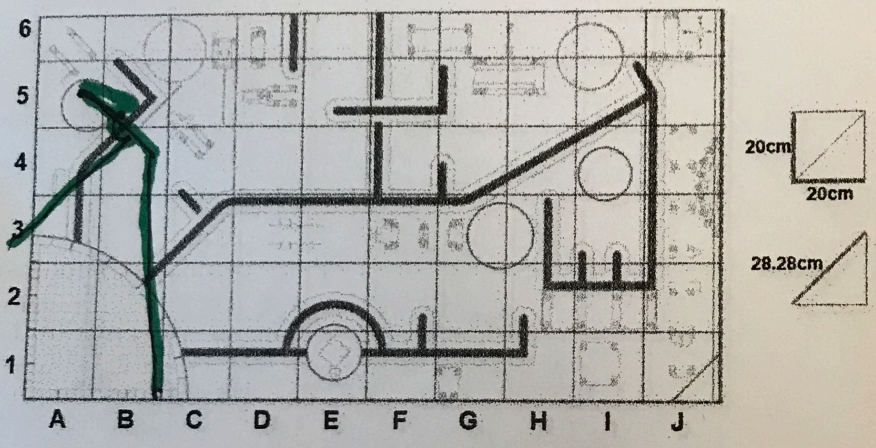
*** Please save and upload to the Google Drive folder for your team ***

Program File Name 48201_1_final

Robot Path Diagram

Create one Robot Path Diagram for each program you're planning to run. Sketch the path the robot takes as it executes the program. Each time the robot stops or takes an action, use the diagram to show what the robot is doing. Show the path diagram for your team's best program to the Judges during your Robot Design judging session.

CARGO CONNECT℠ Wireframe and Grid



Program Description

Explain each Path Diagram by showing your code, pseudocode (written outline), flow chart, or some other way. Assume the Judges have never seen the language you're using to code. How can you help them understand how your program works? (Use the back or additional pages if needed)

forward 70° r3p= rack and pinion
turn left 8.5 rotations
forward 7cm
R3P down 3cm
back 2cm
turn Right 3cm
turn left 3cm
go Strait. 80cm

Robot Design Summary

Team Number 48201

Team Name Cyclonebots

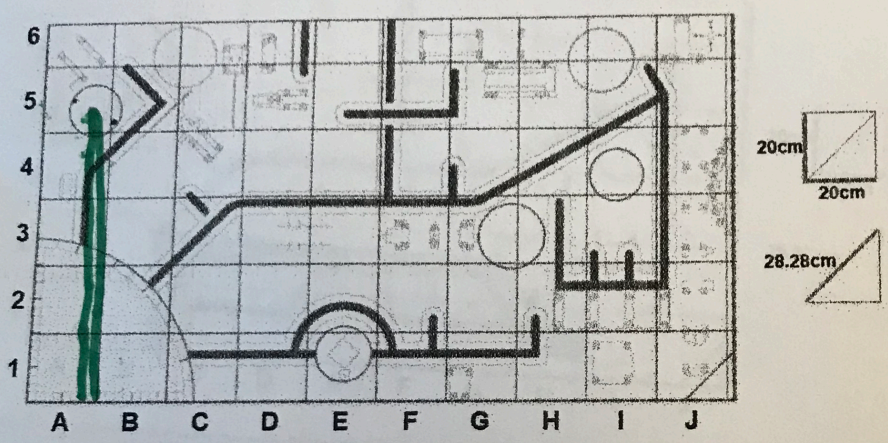
*** Please save and upload to the Google Drive folder for your team ***

Program File Name 48201_2_final

Robot Path Diagram

Create one Robot Path Diagram for each program you're planning to run. Sketch the path the robot takes as it executes the program. Each time the robot stops or takes an action, use the diagram to show what the robot is doing. Show the path diagram for your team's best program to the Judges during your Robot Design judging session.

CARGO CONNECT℠ Wireframe and Grid



Program Description

Explain each Path Diagram by showing your code, pseudocode (written outline), flow chart, or some other way. Assume the Judges have never seen the language you're using to code. How can you help them understand how your program works? (Use the back or additional pages if needed)

go forward 61cm

~~turn~~

go backward 60cm

FIRST LEGO LEAGUE

Robot Design Summary

Team Number 48201

Team Name Cyclonebots

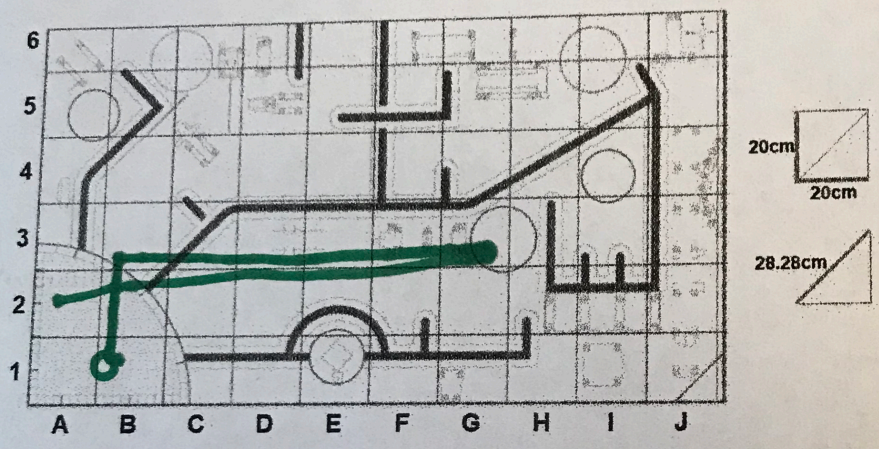
*** Please save and upload to the Google Drive folder for your team ***

Program File Name 48201_3_final

Robot Path Diagram

Create one Robot Path Diagram for each program you're planning to run. Sketch the path the robot takes as it executes the program. Each time the robot stops or takes an action, use the diagram to show what the robot is doing. Show the path diagram for your team's best program to the Judges during your Robot Design judging session.

FIRST LEGO LEAGUE **CARGO CONNECT℠ Wireframe and Grid**



Program Description

Explain each Path Diagram by showing your code, pseudocode (written outline), flow chart, or some other way. Assume the Judges have never seen the language you're using to code. How can you help them understand how your program works? (Use the back or additional pages if needed)

forward 61cm
turn 45° Left
forward 3cm
back 3cm
turn -45°
back 62cm

FIRST LEGO LEAGUE

Robot Design Summary

Team Number 48201

Team Name Cyclonebots

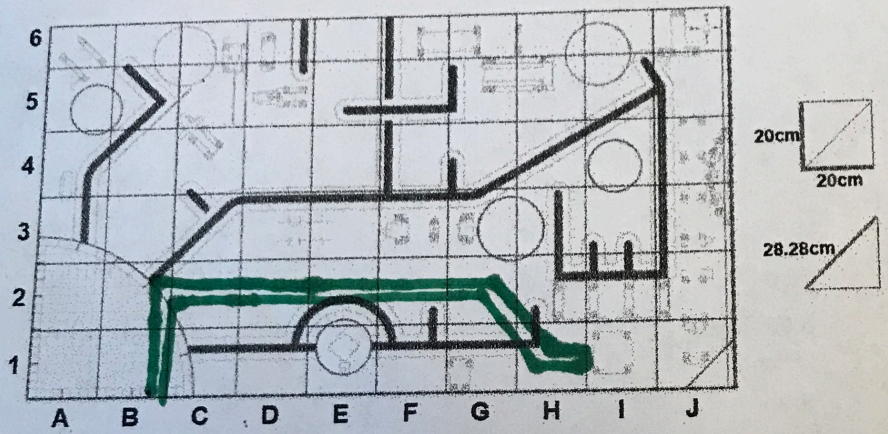
*** Please save and upload to the Google Drive folder for your team ***

Program File Name 48201_4_final

Robot Path Diagram

Create one Robot Path Diagram for each program you're planning to run. Sketch the path the robot takes as it executes the program. Each time the robot stops or takes an action, use the diagram to show what the robot is doing. Show the path diagram for your team's best program to the Judges during your Robot Design judging session.

CARGO CONNECT℠ Wireframe and Grid



Program Description

Explain each Path Diagram by showing your code, pseudocode (written outline), flow chart, or some other way. Assume the Judges have never seen the language you're using to code. How can you help them understand how your program works? (Use the back or additional pages if needed)

forward 26cm
turn right 97cm
forward 27cm
turn 8cm
forward 8cm
back 30cm
turn left 5cm
back 9cm
turn left 10cm
go back home 115cm