



CHALLENGE 3

CONSTRUCTION ZONE ... FOLLOW THAT PILOT CAR

COLLABORATIVE CHALLENGE

YOU WILL BE WORKING WITH ANOTHER TEAM FOR THIS CHALLENGE AND WILL BE ABLE TO USE BOTH SETS OF KITS TO BUILD THIS ROBOT. A PART OF YOUR SCORE WILL BE GIVEN BY YOUR PARTNER TEAM.

DETAILS

THE DEMOLITION HAS BEGUN AND THERE IS ONLY WAY TO ESCAPE THE CONSTRUCTION ZONE UNSCATHED: TO FOLLOW THE PILOT CAR'S EVERY MOVE. THERE WILL BE OBSTACLES THAT THE PILOT CAR WILL GUIDE YOU AROUND AND IT MAY STOP, BACK UP AND MAKE 90 DEGREE TURNS THROUGHOUT THE COURSE.

THE PILOT CAR HAS A LARGE BACK PLATE, WHICH IS APPROX 5" HIGH X 9" WIDE, THAT STANDS A TOTAL OF 8" HIGH. THERE ARE ALSO 2 SMALL SIDE PLATES ROUGHLY 3 INCHES WIDE. BEFORE THE CAR MAKES ANY CHANGES IN DIRECTION, IT WILL STOP FOR A MOMENT. THEN, WILL TRANSMIT* "L" OR "R" IF IT IS GOING TO TURN, OR WILL BEGIN USING THE BACK UP BEEPER IF IT WILL BE BACKING UP. ONCE IT HAS COMPLETED ANY TURN, IT WILL PAUSE FOR 10 SECONDS TO ALLOW FOR YOU TO FIND IT AGAIN. TO COMPLETE THIS CHALLENGE, YOU MAY USE BOTH BRICKS AND ANY COMBINATION OF SENSORS AND MOTORS.

THINGS TO KEEP IN MIND

YOUR CAR CANNOT RUN INTO THE PILOT CAR, AND MAY NEED TO STOP IF THE PILOT CAR DOES.

YOUR CAR CANNOT RUN INTO ANY OF THE OBSTACLES THE PILOT CAR IS LEADING YOU THROUGH.

MUST FOLLOW TO THE END OF THE PATH AND NOT 'GET LOST' IN THE PROCESS

SCORING

(100) DESIGN AND PROGRAM ALGORITHM

(25) STABILITY

(25) ORIGINALITY

(25) IMPLEMENTED SENSORS AND ADAPTED TO SITUATION

(25) COMPLETED IN TIME FOR SCHEDULED JUDGING

(150) DEMONSTRATION

(75) STAYED ON PATH

(75) FOLLOWED THE CAR TO THE END

(50) TEAMWORK

THERE IS A 10PT DEDUCTION (MAX 30) FOR EVERY OBSTACLE YOU RUN INTO

THERE IS A 25PT DEDUCTION (MAX 50) FOR EVERY TIME YOU RUN INTO THE PILOT CAR

* SEE BLUE TOOTH INSTRUCTION PAGE FOR TRANSMISSION SPECIFICS