Team Description Paper (TDP) 2021 - Soccer league (Cover Page)

League Name:	RCJ Soccer open
Age Group:	Junior
Team Name:	mind benders
Team Website:	
Participants Name	Aisha Mohammad Ismail Alraeesi Rowdah Rashed Saeed Alshehhi Mareyha Ahmed Ali Ben Hilal Alnaqbi Suhaila Saeed Ali Mohamed Al Mansouri Naqbi
Mentor Name:	Emad mohammad ahmed aldababseh
Institution:	Ministry of Education
Region	United Arab Emirates
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Date:	22/6/2021

RoboCup 2021 WORLDWIDE

Team Description Paper

RoboCupJunior Soccer Open

Aisha Mohammad Ismail Alraeesi

Rowdah Rashed Saeed Alshehhi

Mareyha Ahmed Ali Ben Hilal Alnaqbi

Suhaila Saeed Ali Mohamed Al Mansouri Naqbi

mind benders, UAE ministry of Education , UAE

1. Abstract

The project revolves around two robots that are programmed as attacker and defender, the defender robot programmed to score a goal on the other team, and is not allowed to approach our team's area line, while the attacking robot is programmed to block the ball and to prevent the other team from entering the ogre. The two robots are programmed according to the pitch measurements so that they do not exceed these measurements.

a. Team Background

we are UAE soccer open team from United Arab Emirates . Our team are consisting of 4 members :

- Aisha Mohammad Ismail Alraeesi
- Rowdah Rashed Saeed Alshehhi
- Mareyha Ahmed Ali Ben Hilal Alnaqbi
- Suhaila Saeed Ali Mohamed Al Mansouri Naqbi

We participated on the national competition for Robocup and it was our first participation in the robotics and those kind of competitions.
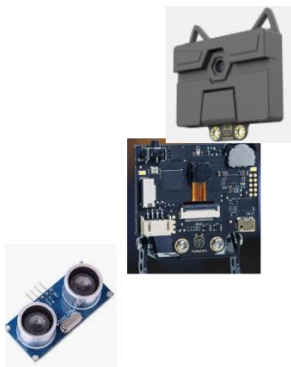
c. Team photo
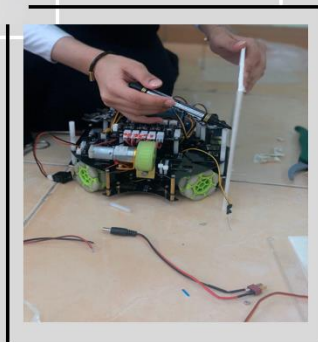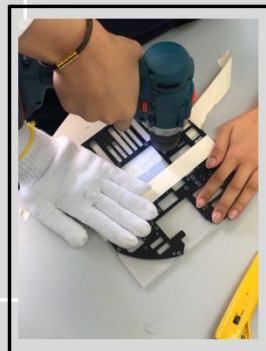

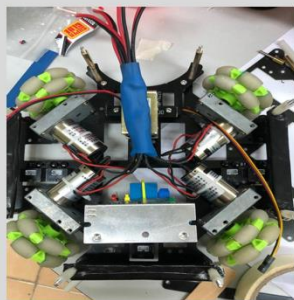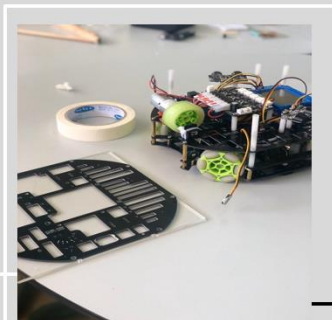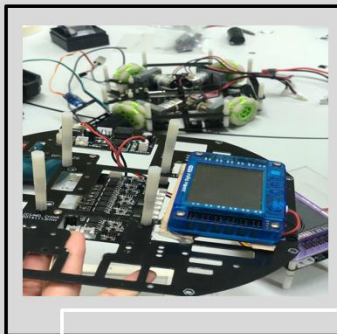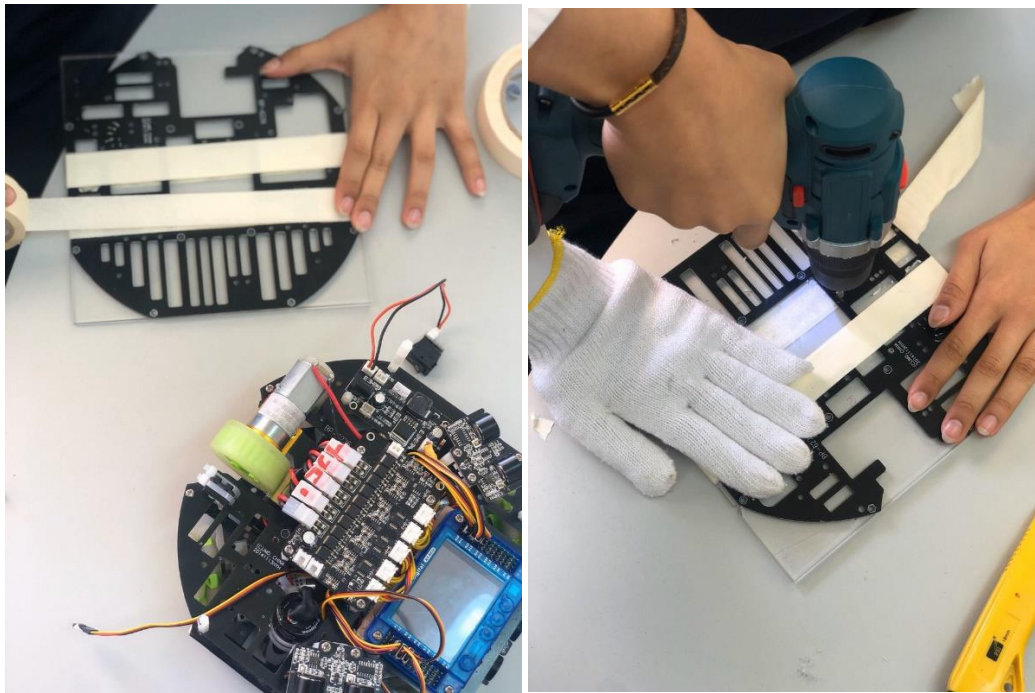e. Previous Robo Cup or other robotics experience

The team has no previous experience in the Robo Cup competitions except for the national competition in January 2020 ,we participated in national RoboCupJunior soccer open.

2. Strategy

Our goal was to build the robot using C language for programing also the best types of sensors and and the most accurate types of cameras, . Therefore, we chose Husky lens camera it's more accurate than pixy 2, so that it recognizes the color easily and can track the ball and its color over long distances and also in terms of programming it is fast in giving results and it is accurate and gives results in easier ways such as "the y-axis, the x-axis and the height." We used many types of sensor as " Line sensor to detect the white line and Ultrasonic sensor to measure the distance " .

we have made a few of changing on the robot design, as the second base we make by acrylic material because we know that it will be more nicer and good for the camera.

3. Robo Cup Achievement

The team has no previous experience in the Robo Cup competitions. This is our first participation. Except for the national competition in January 2020 ,we participated in national RoboCupJunior Rescue Line in UAE and we won the first place.

4. Discussion and conclusion

The contestants experience:

Aisha:

So I am new to the robot field , it was the first time for me to participate and I loved this competition , it expand my thinking so much that if I saw any robot whatever the place was and time I know how to deal with it and I would love to be part of something big in this community about robotics .

Mareyah:

I have a great experience with this competition, I enjoy learning a new type of programming and feel the pressure of this competition. It was hard for me to work on something that had great knowledge for my age, but it was easy for me to learn everything from the beginning .I hope to have another chance to play and do some other tough competition.

Suhaila:

I don't usually participate in those kinds of competitions so I decided to do it and get out of my comfort zone. We worked hard on getting to where we are now. I am very proud of myself. I feel much more confident now and capable of doing anything I set my mind for. Overall it was such an amazing and great experience.

Rowdah :

This experience was a new experience for me because I have never entered the field of robotics, but I enjoy this competition and will not forget it, as it has tension and pressure and also enjoyable, but there were situations in this competition that make me not forget the competition.