COMED KARES
INNOVATION HUB

ROBOTICS INTERNSHIP OUTCOMES

JP NAGAR

2023

Robotics Course

This course provides a comprehensive hands-on experience in building robotic applications, equipping students with the skills to integrate hardware and software components. Students will explore various physical and digital tools to construct projects involving computer vision and motor control. Development boards like Raspberry Pi and Arduino UNO are utilised to teach essential concepts, including OpenCV, GPIO interface, and Serial communication. By the end of the 12-week course, participants from diverse domains will possess the expertise needed to create innovative products as product developers.

Overall program Rating	4.8/5
Attendance	98.6%
Student Enrolled	28

Highlights of batch 2 @ JP Innovation Hub

This program saw the participation of 28 students from SRI SAIRAM COLLEGE OF ENGINEERING. The students partook in the program to come up with bots that are capable of following the line, detect colours and perform certain tasks .

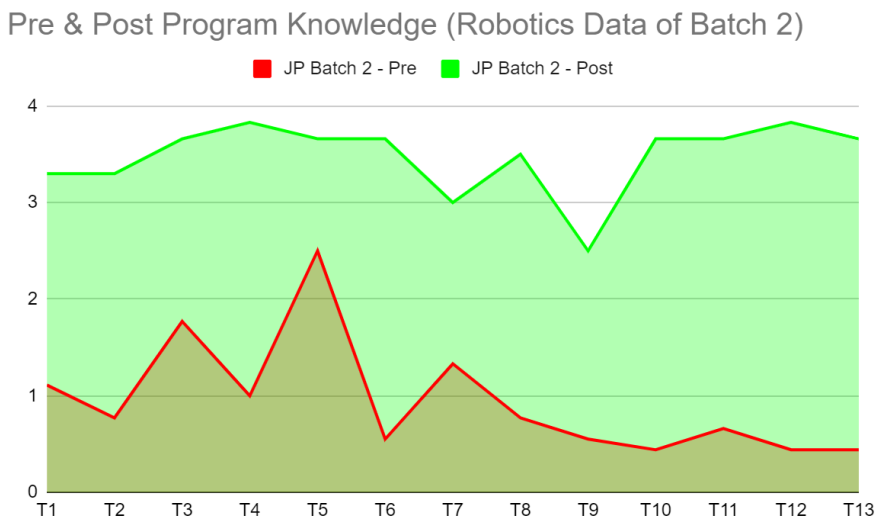
10 Bots built for the final line following design challenges

72.5% increase in knowledge levels and performance of students

Commented [1]: Needs exact number

Post Program Findings of our Courses

Robotics Course Assessment Report of batch 2



The batch 2 of JP Innovation Centre in Bangalore, have resulted in a **significant increase in knowledge levels (2.45 points avg across all topics)** **self-reported by students.** Based on the course outcomes a total of 13 topic related questions were posed to the students before and after the program to see the change in their self efficacy levels. The highest score of 4 indicates complete practical expertise in the topic, and **a score of 3 means achievement of program relevant objectives**, which has been true for all the centres.

**Refer the table for the tags and their relevant topics*

Topics	Tag	Topics	Tag
Microcontroller	T1	Interfacing Sensors and Actuators with Raspberry Pi	T8
Arduino	T2	Raspberry Pi for Motion Control	T9
Sensor	T3	Computer Vision and OpenCV	T10
Motor Control	T4	Object Detection Using openCV and HSV	T11
Robot Motion Control	T5	Detecting Edges or Lanes Using OpenCV	T12

Python Programming	T6	Object detection and Move Around Arena	T13
Raspberry Pi	T7		

What our students had to say

1. *Thank you for distributing your knowledge, skills, and ability to solve problems. I loved the way of teaching & interaction with all students not only during the class hours but also out of the class. Once again Thank you and keep cheering for students & wish you great success in all the aspects.*

2. *To learn about robotics performance and gain knowledge to operate a robot through the commands of codes.*

3. *I chose this course to learn about robotics and to know more about robotics and its working in detail and to learn different tasks and challenges in this course.*

4. *I am interested in programming and build something in practical like i want to use my programming for practical application and create and explore new things.so by the end of the course i 4.want to at least learn something might be making a mini robot at least by myself and gain new skill.which will help my future studies .*

"

Final Line Follower Design Challenge

Robotics Internship Design Challenge

T JOHN INSTITUTE OF TECHNOLOGY / SECOND SEM

PROBLEM STATEMENT

Build a robot capable of line following & detecting colours for performing certain tasks using Raspberry Pi with integration of basic motion and computer vision applications.

STUDENT NAME :UDAYAKIRAN M

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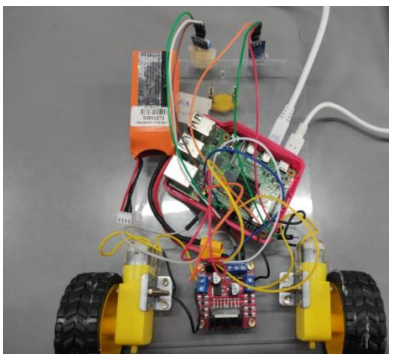

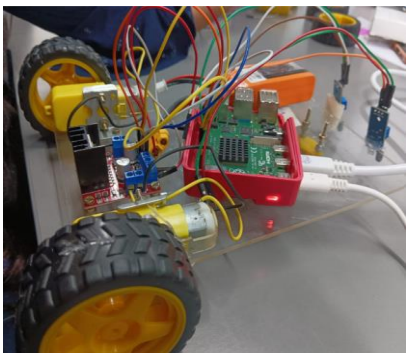

STUDENT NAME :Chandana A

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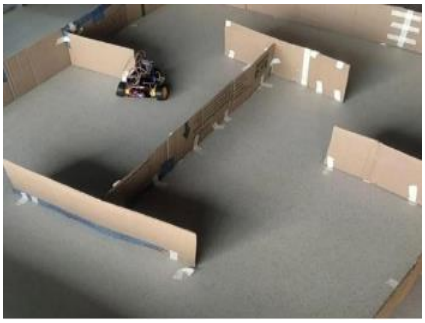

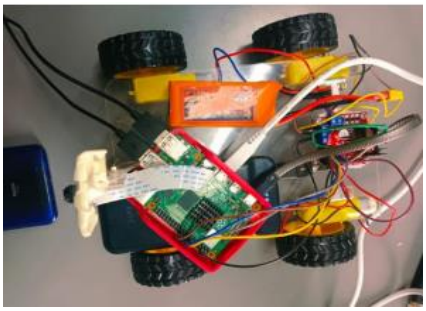

STUDENT NAME : Nishanthi S

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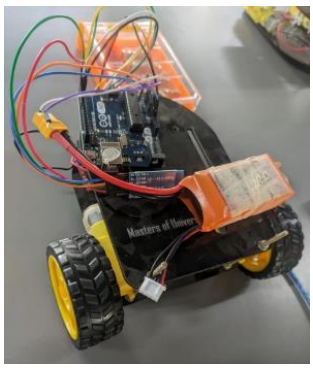

STUDENT NAME : PUNEETH B ANURA

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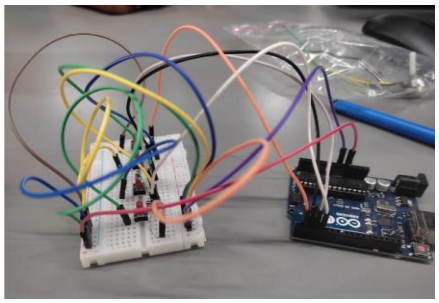

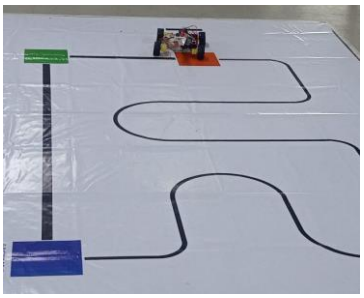

STUDENT NAME : Ramya S

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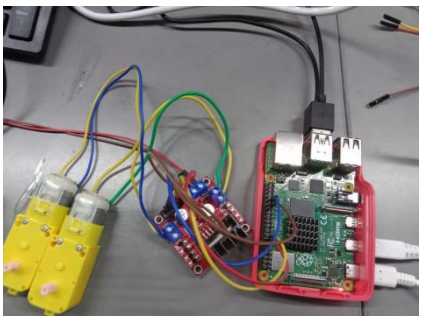

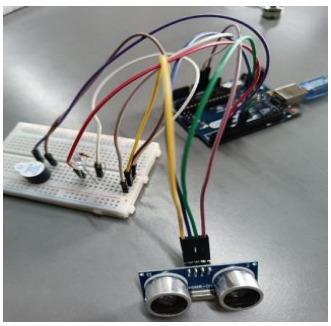

STUDENT NAME : Tanuja B

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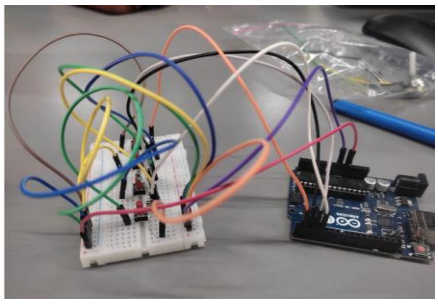

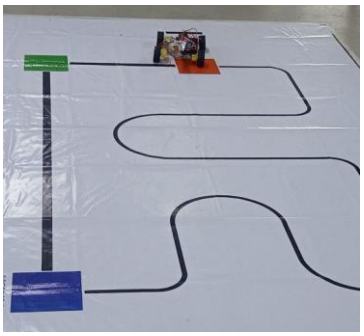

STUDENT NAME : ADIL BASHA A

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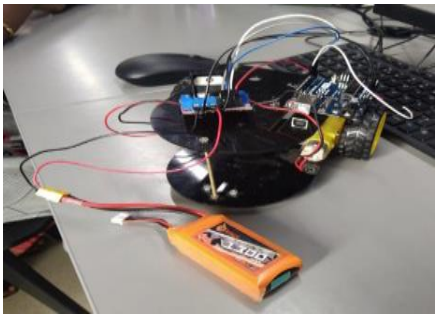

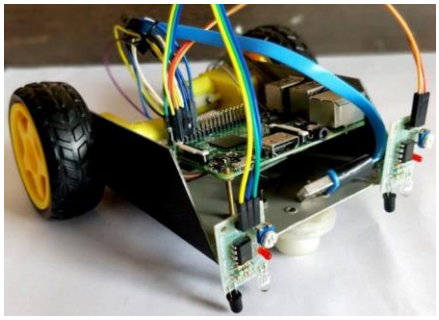

STUDENT NAME : SPURTHI R

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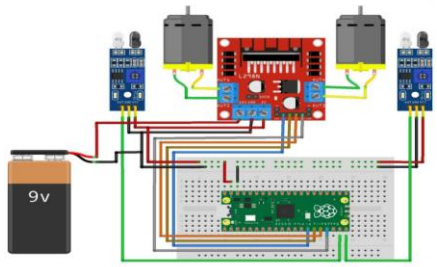

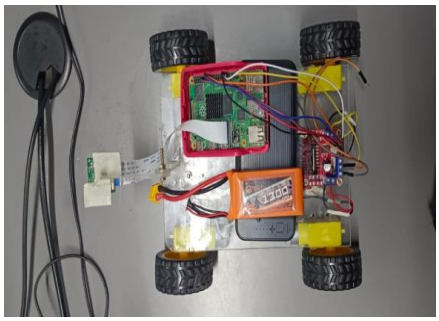

STUDENT NAME : SHREYA S

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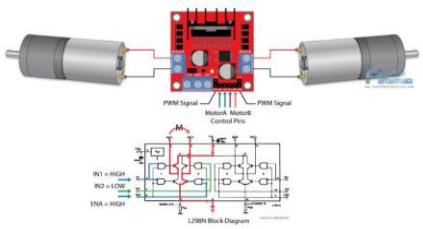

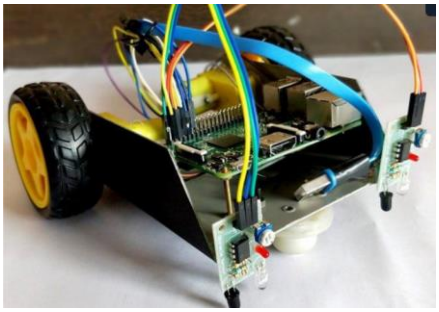

STUDENT NAME : DIVYASHREE R

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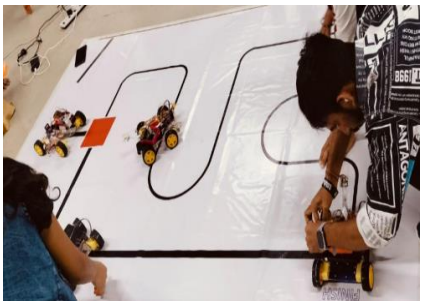

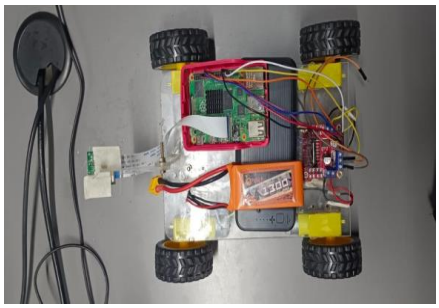

STUDENT NAME : KARTHIK M S

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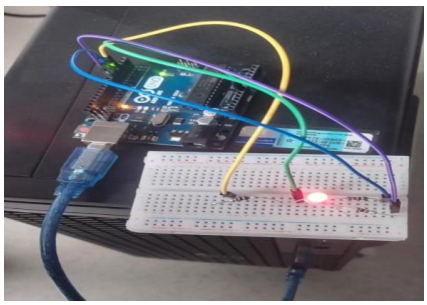

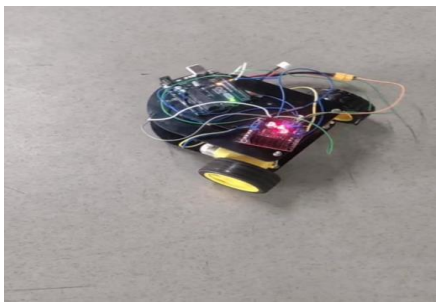

STUDENT NAME : SUKANTHRAJ R

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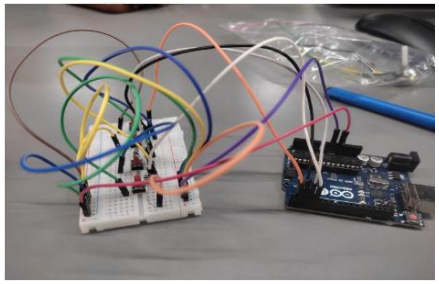

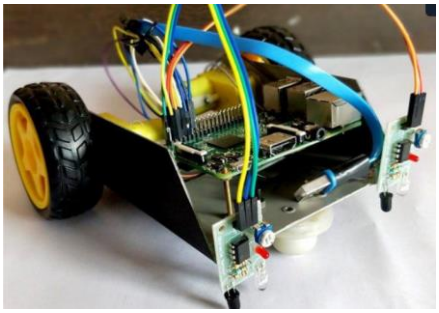

STUDENT NAME : KEERTHI CHOWDARY G

PROTOTYPE IMAGE

STUDENT NAME : ANKITHA D

PROTOTYPE IMAGE