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VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANA SANGAMA", BELAGAVI-590018 KARNATAKA



Mini Project Report (18ECMP68)
ON

" Line following robot "

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF ENGINEERING

IN

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

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M BHAVANI SHANKAR(USN :1SV19EC032)

Under the guidance of:

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Assosiate Professor, Dept. of ECE,SIET

Tumakuru



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SIET, Tumkur-6

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Recognised by govt. of Karnataka , Affiliated To VTU,Belagavi and approved by AICTE,New Delhi)

Sira Road, Tumakuru — 572106

2021-2022

Principal

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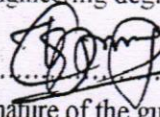


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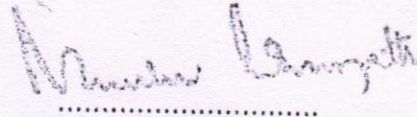
This is to Certified that the mini project work (18ECMP68) entitled "LINE FOLLOWING ROBOT" has been Successfully carried out by SAHIL SALAM (USN: ISV19EC025), M BHAVANI SHANKAR (USN: ISV19EC032), a bonafide students of Shridevi Institute of Engineering and Technology, Tumkur- 572106, in partial fulfillment for the award of Bachelor Of Engineering in Electronics & Communication Engineering of the Vishvesvaraya Technological University, Jnana Sangama, Belagavi -590018, during the academic year 2021 2022. It is certified that all corrections/suggestions indicated for internal assessments have been incorporated in the report. The mini project report has been approved as it satisfies the academic requirement with respect to the mini project work prescribed for the said Bachelor Of Engineering degree.


Signature of the guide

Dr. Pradeep K G M
Associate professor
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Signature of the HOD

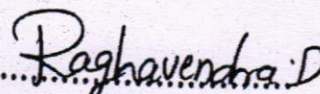
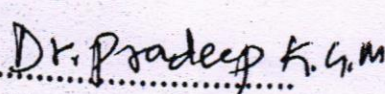
Prof. Aijaz Ahamed Sharief
HOD
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Signature of the principal

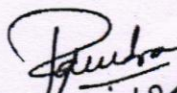
Dr. Narendra Viswanath
Principal
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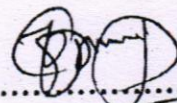
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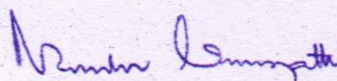
Name of the Examiners:

1.  Raghavendra D
2.  Dr. Pradeep K. G. M

Signature with date:

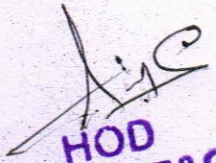

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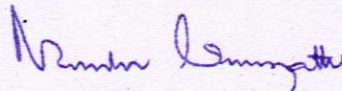

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ABSTRACT

This paper describes algorithm of line tracking robot (any contrasting colors) it's a machine that can follow a path. The path can be visible like a black line on a white surface (or vice-versa), the line follower robot is an automated part of a fully automated factory which are considered to be the most flexible type of material handling system, the vehicles' working environment ranges from small offices with carpet floor to huge harbor dockside areas, as it give many advantages in our lives. The aim of this project is to build a prototype of a black line tracking robot that can move on a flat white surface with visible black line to follow by its two driving wheels that connected to two DC gear motors and a third wheel that make the vehicle to rotate 360°. The prototype is able to follow the black line on floor with the AVR microcontroller to synchronize the orders from the sensors and for controlling the delay. To follow the line, the microcontroller is attached to a sensor that continuously reflecting to the surface condition by proximity sensor which control the movement and the direction of the vehicle which play role of stern and a distance sensor which act like a brakes when necessary. Therefore, this project involves designing and fabrication of the hardware and the software.


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