

Automatic Testing and Monitoring for Four Wheeler License

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ABSTRACT: Nowadays the license authentication process followed by our government is only manual. This results in false authentication which may create fake drivers. In order to overcome this phenomenon, we have developed a new project. The main objective of our project is to make the license authentication as an automated one. In our project the sensors are placed in the test tracks. If a driver made a mistake, the mistake will be recorded and then alert is given to RTO officials. Our circuit will auto generate the next date for testing, by this way the testing is done for another test tracks. If a person fails in anyone of the test it will be recorded and intimated to the RTO officials. There by road accidents can be reduced. The aim of this project is to monitor the surveillance of the license issued to four wheelers. This aims to discard the forensic activities that exist. Initially Vibration sensors are placed on both the end of testing track, when the wheels of the vehicle hits those sensors, the signal sensed by those are sent to the Microcontroller. The Microcontroller then processes these signals and the invalid or at automatically rejects the form of the applicant and hence the license is not issued to the particular candidate at any matter.

KEYWORDS: License Authentication, Vibration Sensors, Microcontroller.

I. INTRODUCTION

At present we are using a manual system for authentication process, which may results in the creation of many fake drivers and results in many road accidents. This testing system consist of vibration and pressure sensors which are placed in the 'H' test tracks which will automatically sense the driver mistakes in that particular track and displayed. By this method we also detect the mistakes in mountain (or) up-gradient, and parking test. Test completion and rejection is automatically displayed. So the fake drivers are fully eliminated. By automatic process, the license track consists of vibration sensor and pressure sensor to detect and observe the position of a person. It is not necessary for the officer to monitor a particular place. It can be monitored through the display, the result will be displayed while the person is selected or rejected. The driving license for a person should be tested and monitored, by the manual process in order to reduce the manual work; the implementation of automatic process is used. The best way of test a person is to drive the vehicle in the shape of H through which the eligibility can be tested by this method.

The objectives of the proposed work are as follows:

- Reduce the manual work
- Easy method to provide a license
- No chance of cheating while driving in a track
- Not necessary to monitor the process by the officer
- Eligibility can be tested easily through this method

Advantages of the proposed work are

- Easy implementation of process
- Cost is low
- Saves time
- Reduction of manual work

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II. PROPOSED SYSTEM

The license track consists of vibration sensor and pressure sensor. The license test is classified into three types.

- H test
- Mountain test
- Parking test

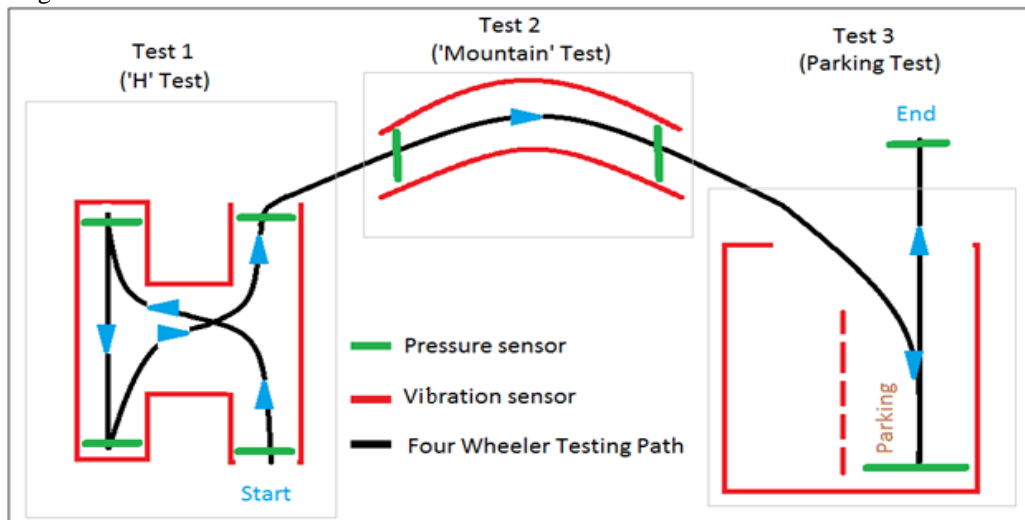


Fig. 1 Test track of four wheeler license

If a driving person fails in the first test, it automatically sends the result as rejected through the display in the office. There is no need of an officer to monitor the process in a tracking place. The implementation of this technique will reduce the time, easy way to test.

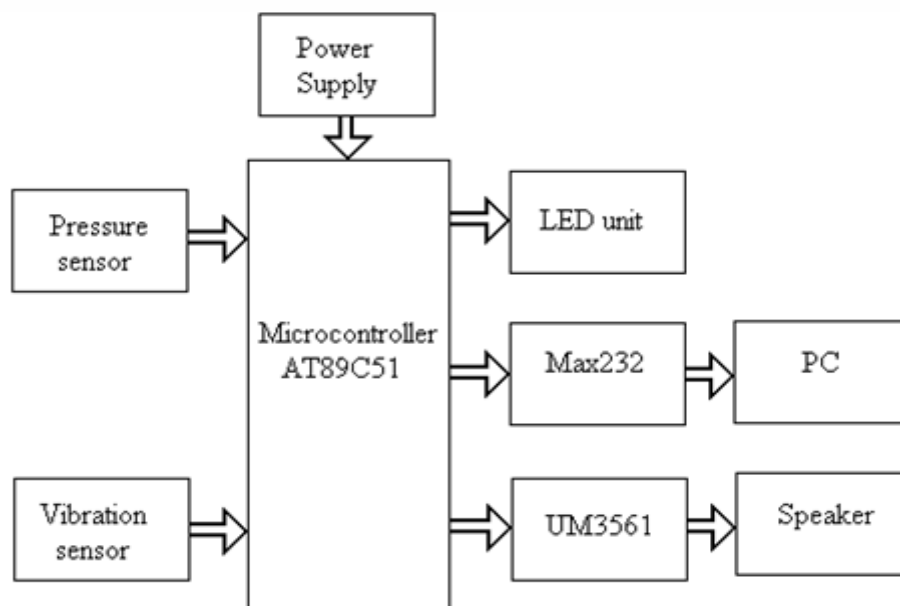


Fig. 2 Block diagram the system

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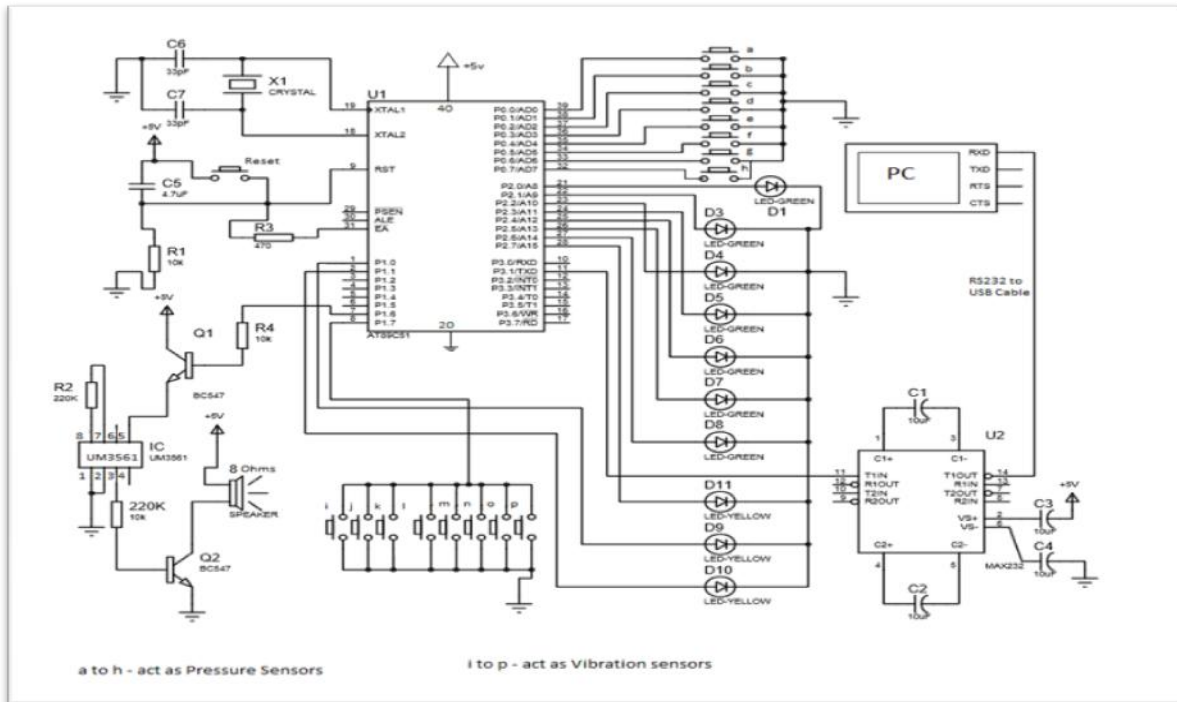


Fig. 3 Circuit diagram of the system

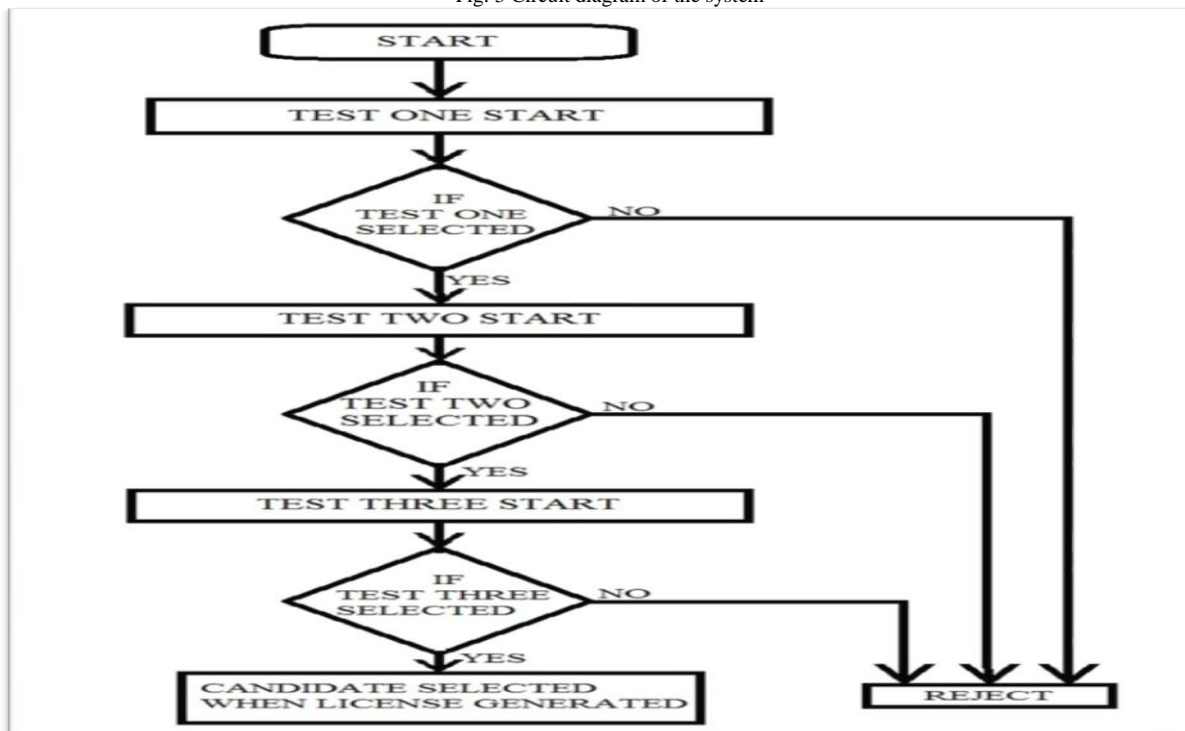


Fig. 4 Flow Chart of the system

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III. SOFTWARE REQUIREMENTS

KEIL MICRO VISION

The μ Vision IDE is, for most developers, the easiest way to create embedded system programs. μ Vision operates in two modes: Build Mode and Debug Mode. Screen settings, Toolbar settings, and project options are stored in the context of the mode. The File Toolbar is enabled in all modes, while the Debug Toolbar and Build Toolbar display in their respective mode only. Buttons, icons, and menus are enabled if relevant for a specific mode. The standard working mode is Build Mode. In this mode you write your application, configure the project, set preferences, select the target hardware and the device; you will compile, link, and assemble the programs, correct the errors, and set general settings valid for the entire application.

FLASH MAGIC

In-System programming (ISP) is a method of programming and erasing the on-chip flash or RAM memory using the boot loader software and a serial port. The part may reside in the end-user system. The flash boot loader provides an In-System Programming interface for programming the on-chip flash or RAMS memory. This boot loader is located in the upper 8 kB of flash memory; it can be read but not written to or erased.

PROTEUS

Proteus is a fully functional, procedural programming language created in 1998 by Simone Zanella. Proteus incorporates many functions derived from several other languages: C, BASIC, Assembly, Clipper/dBase: it is especially versatile in dealing with strings, having hundreds of dedicated functions: this makes it one of the richest languages for text manipulation.

IV. EXPERIMENTAL RESULTS

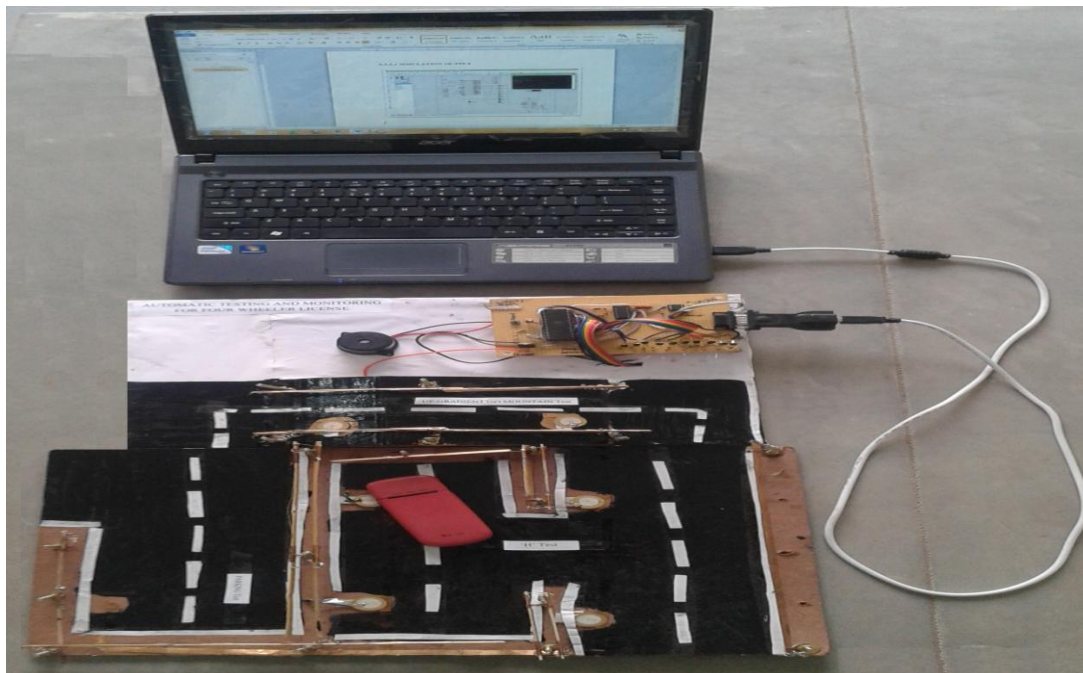


Fig. 5 Circuit and Track of the system

In the main circuit we have used eight Pressure sensor & eight vibration sensors and LEDs for indication. By using the RS232 cable is transferred the information to the Personal Computer.

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V. CONCLUSION

A method for automatic testing and monitoring four wheeler licenses has been implemented. By implementing this we can easily maintain the license providing system using the sensor process, Though Sensor, Microcontroller will receive the performance of a person and the result is directly sent to the RTO officials. So there is no chance of committing any mal functions or cheating while providing the license. There by wastage of time is avoided.

The System can be further enhanced by using a bio-metric. For example Fingerprint Iris, etc., for monitoring the track throughout the completion process Camera can be fixed. By using the camera, we can also able to test. The hand signals whether the person knows all rules and regulations of the road to drive a vehicle. Implementation of this kind of feature enhancement will be more useful to the growing generation, people should be aware of this kind of method.

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