



**PORTABLE PUMPING TEST**

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## ABSTRACT

Portable pumping test (PPT) will use for the student or government's interview for physical test. This design will reduce the error of push up test. The design will attach at the floor that is perpendicular to the participant's chest before the participant doing the push up. This project can reduce the manpower because when the student were doing their push up, it need 1 participant, 1 person count the number of push up and another 1 person set the timer.

This design consists 3 major parts it is the push button, arduino and LCD display. The push button is the input of the project, the arduino as the microcontroller and the LCD display is the output of this project. The portable pumping test will show how many time that participant do their push up and must doing the push up follow the time that have set. It will make the participant easy to know their result. When the timer is countdown at '0', the buzzer will ON that means the timer is done.

This project is useful for the physical test especially for student that have 'Ujian Segak', government's interview and athletes.

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# CHAPTER 1

## INTRODUCTION

In this chapter, Portable Pumping Test is introduced. The background study, problem statement, objectives and scope of work for PPT is also explained.

### 1.1 Background of Study

Innovation Portable Pumping Test (PPT) gave significant implications for students and testers. This design was focus for the student in primary or high school for their “ujian Segak”. This design also can use when interview the government job in Malaysia such as army, police and others. This PPT was using the push button to detect tester’s chests that is perpendicular to the product or devices. This design will attach at the floor so that the project can be touch the chest. This design will have a set time and the user will push up in between the time was set. This also can eliminate the use of stopwatch and manual counting. This design also will monitor the result of push up on the LCD display.

This product can be modified according to the height of a person. This product can be raise and lowered. It is design to reduce the case of people forget their counting and missing the pumping result. Advantage of this device is to prevent the occurrence of errors count the number of pumping (push up) when done. These tools can also save energy tester and can be done more efficiently. With this design of project also can help reduce the energy of human when making tests for participants.