PROCEDURES AND PROCEDURES FOR OBTAINING PATENT RIGHTS FOR ULTRASONIC WAIST INVENTION AS A TUNANETRA ASSISTANCE TOOL

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Abstract

There have been many mobility tools created for blind people as users, but few have more complex functions in detecting objects or obstacles both in front of and beside users when doing their mobility. This is because the sensor has not been applied as an object detector in a more optimum distance and range, and has not been developed in a more efficient and more fashionable manner for users. output design in the form of vibration and sound with a range of 3 cm to 3 m. From the measurement results it was found that the output voltage of the PING and SRF05 sensors was directly proportional to the increase in the detection distance of the object and the two sensors requiring a reflection time of 74 ms and 91 ms for a distance of 10 cm, respectively. Ultrasonic Sensor Ultrasonic waves are acoustic waves that have frequencies ranging from 20 kHz to around 20 MHz. The working frequency used in ultrasonic waves varies depending on the medium being passed, starting from the low density of the gas phase, mathematically the distance can be calculated as follows: $S=v.t$ Where s is the distance in a meter, v is the speed of sound which is 344 m / sec and t is the travel time in seconds. When an ultrasonic wave hits a barrier then the wave will be reflected partly absorbed and some of the others will continue. An ultrasonic sensor is a sensor that converts physical quantities (sounds) into electrical quantities. In this sensor ultrasonic waves are generated through an object called piezoelectronics. Piezoelectronics will produce ultrasonic waves with a frequency of 40 kHz when an oscillator is applied to the object.

Keywords: Cash Receipts and Expenditures

A. INTRODUCTION

Patent registration procedure. To register patents can directly register the innovation. But if you are still confused or don't have the time to register you can use the services of a consultant. Before registering

can submit a kind of description of your innovation. The usual description is about the background regarding innovation accompanied by photographs.

The following procedure
1. A Patent Application is

submitted by filling in the form provided for it in Indonesian and typed in 4 (four).

2. The applicant must attach:

- a. special power of attorney, if the application is submitted through a Patent consultant registered as a proxy;
- b. letter of transfer of rights, if the application is submitted by another party who is not the inventor;
- c. description, claim, abstract: each of 3 (three) copies;
- d. picture, if there is: 3 (three) copies;
- e. proof of original priority, and front page translation in Indonesian in 4 (four) copies, if submitted with priority rights.
- f. translation of the description of the invention in English, if the invention is originally in a foreign language other than English: duplicate 2 (two);
- g. proof of payment for the Patent application fee of Rp. 575,000 (five hundred seventy five thousand rupiahs); and
- h. proof of payment for a Simple Patent application fee of Rp. 125,000 (one hundred and twenty-five thousand) and for a Simple Patent substantive examination of Rp. 350,000 (three hundred fifty thousand rupiahs);
- i. additional cost for each claim, if more than 10 claims: Rp. 40,000 per claim.

3. Writing descriptions, claims, abstracts and images as referred to in item 2 letter c and

letter d are determined as follows:

a. each sheet of paper is only one of its faces which may be used for writing and drawing;

b. descriptions, claims and abstracts are typed in HVS paper or similar which are separated by size A-4 (29.7 x 21 cm) with a minimum weight of 80 grams with the following limits:

- from the top edge: 2 cm
- from the bottom edge: 2 cm
- from the left edge: 2.5 cm
- from the right edge: 2 cm

c. the A-4 paper must be white, the average is not shiny and its use is done by placing the short side at the top and bottom (unless used for pictures);

d. each description sheet, claims and drawings are numbered in Arabic numerals in the upper middle part and not in the limit as referred to in item 3 letter b (1);

e. in each of the five lines typing the description and claims, it must be given a line number and each new page is the beginning (beginning) of the number and placed to the left of the description or claim and not to the limit as referred to in item 3 letter b (3);

f. typing must be done using black ink (toner), with sizes between lines of 1.5 spaces, with upright letters the minimum letter height is 0.21 cm;

g. signs with lines, chemical formulas, and certain signs can be written by hand or painted;

h. the image must use black Chinese ink on A-4 size white drawing paper with a minimum weight of 100 grams that is not glossy with the following limits:

- from the top edge: 2.5 cm
- from the bottom edge: 1 cm
- from the left edge: 2.5 cm
- from the right edge: 1 cm

i. all submitted Patent documents must be in full sheets of paper, may not be torn, folded, damaged or affixed images;

j. each term used in descriptions, claims, abstracts and images must be consistent with each other.

Persons with visual impairments are someone with limited vision. When walking they often use tools such as sticks to find out the obstacles / the existence of other objects or to know the contours of the road to be passed. This invention is in the form of an ultrasonic belt that serves to replace a stick as a blind visual aid. This invention consists of 2 ultrasonic sensors with side object rejection that is placed horizontally and diagonally to detect any obstacles in front of the user and to detect obstacles in the form of holes or climbs /

stairs that are on the contour of the road that the user will pass. In this invention, data from the 2 ultrasonic sensors will be processed by the microcontroller as the control center for input / output data so that the warning output in the form of buzzer sound will be activated when it detects a blockage within 150 cm in front of the user, and a warning output in the form of vibrator vibration barriers will be activated when the road contour is detected in the form of a hole / ladder which has a difference in surface height of the land to reach more or less than 12.5 cm from the reference contour of the road.

B. CONCLUSION

The PING ultrasonic sensor and the SRF05 ultrasonic sensor have the same characteristics, namely the output voltage on the PING sensor and SRF05 are both directly proportional to the increase in detection distance to the object.

- For a distance of 10 cm, the PING ultrasonic sensor requires a wave reflection time of 74 ms, while the SRF05 ultrasonic sensor requires a wave reflection time of 91 s.
- When walking they often use tools such as sticks to find out other objects or to find out

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C. ACKNOWLEDGEMENT

University Of Indonesia
University Of Mitra Indonesia
Telkom University
University Of Melbourne
Saitama University

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