

Design and Implementation of Automatic Money Counting and Sorting System

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Abstract: Money counting has been an issue for temple. Long ago, before the arrival of money counting machine, man has to count the money manually, and it is time consuming and tedious for those who handle the counting work. Mistakes on counting happen most of time due to many reasons: eyes tiredness, losing focus, and again new currency and previous currency of some notes causes confusion while sorting and etc. Alternative money counting method can appear to be essential because an accurate money counting is able to provide a quantitative output and time saving. In this paper, color sensor is used for detection of particular note. We are using Atmega 328 microcontroller and various components like IR sensors, UV sensor, color sensor, dc motors and LCD display. Note is inserted into the system i.e. paper picking roller mechanism which is used in printer. First IR sensor will be used for detection of notes and then Color sensor will be used for detection of color of notes. Second IR sensor will be used for sorting mechanism. First motor will accept the note and note will be given for sorting mechanism. If in case note is fake then this will be detected by using UV sensor, then it will be given to the faulty compartment. For better output purpose we are using LCD display monitor so that we can get all the information simultaneously and in steady format. In short because of this project donation system will be easier.

Keywords: Note Picking Mechanism, DC Motor, IR Sensor, Color Sensor, Sorting Mechanism

REFERENCES

- [1]. Coin Counting System Using Neural Network.” Institute Matematik Kejuruteraan, University Malaysia Perlis 02000 Kuala Mohd. Syafarudy Abu & Lim Eng Aik “Visual Based Automatic Perlis, Malaysia, 2009
- Thilan Cooray, Shehan Fernando “Visual-based Automatic Coin Counting System” Department Of Mechatronics, Faculty Of Engineering, South Asian Institute of Technology and Medicine (Saitm), Srilanka.
- [2]. Adnan Khashman, Senior Member, “Coin Identification System” IEEE, Boran Sekeroglu, Member, IEEE and Kamil Dimililer, Member, IEEE. Proceedings of the 2006 IEEE International Symposium on Intelligent Control Munich, Germany, October 4-6, 2006.
- [3]. Minoru Fukumi, Sigeru Omatu, “Rotation-Invariant Neural Pattern.” Associate Member, IEEE, Member, IEEE, Fumiaki Takeda, and Toshihisa Kosaka with Application to Coin Recognition IEEE TRANSACTIONS ON NEURAL NETWORKS, VOL. 3, NO. 2, MARCH 1992.
- [4]. Shatrughan Modi, Seema Bawa India. “Image Processing Based Systems and Techniques for the Recognition of Ancient and Modern Coins”. International Journal of Computer Applications (0975 – 888) Volume 47– No.10, June 2012.
- [5]. Avadhoot R. Telepatil¹, Prashant M. Jadhav² “Colour Object Counting and Sorting Mechanism Using Image Processing Approach”. Assistant Professor, Electronics & Telecomm. Engg. Dept, D.K.T.E’s TEI, Assistant Professor, Electronics Engg. Dept, D.K.T.E’s TEI, Ich.
- [6]. International Journal of modern trends in engineering and research. Scientific journal Impact factor (SJIF): 1.711.
- [7]. Ghulam Farooque “Coin Recognition with Reduced Feature Set SIFT Algorithm Using Neural Network Department of CS & IT The University of Lahore Lahore, Pakistan 2016 International Conference on Frontiers of Information Technology.
- [8]. Marjun S. Sequera¹, Christine Marie J. Madrid², Cozzete Ebor³, Kent Excel Lagare⁴, Mark Dariel Laid⁵, Keno Lamaclamac⁶, Whynne Clyve Llamis⁷, Cayetano Moreto III⁸, Mark Katheleen Panaligan⁹ “Microcontroller Based

Coin Counter with Segregator and Packing System” International Journal of Engineering and Techniques - Volume 3 Issue 4, July-Aug 2017.

- [9]. C M Velua and K R Kashwanb. “Indian Coin Cognition and Sum Counting System of Image Data Mining using ANN” International Journal of Information Processing, 5(3), 26-36, 2011 ISSN : 0973- 8215 IK International Publishing House Pvt. Ltd., New Delhi, India.
- [10]. Primary Examiner F. J. Bartuska Attorney, Agent, Or Firm-James Ray “coin counting and sorting machine” Associates United States Patent, Feb. 29, 2000.
- [11]. John R. Blake, St. Charles, Curtis W. Hallowell, Palatine, IL (U S) “Self service coin redemption card printer Dispenser.” United States Patent, Oct. 25, 2011.
- [12]. Morio Suzuki, Koshigaya; Kenzi Okada, Noda, “apparatus for dispensing coin packages,” both of Japan United States Patent, Jan. 5, 1988.
- [13]. Jerry Frank, Arlöv, Sweden “Coin counting and sorting machine” United States Patent (19) 11 Patent Number. 6,030,284 Frank (45) Date of Patent: Feb. 29, 2000.
- [14]. V Udayashankara, M S Mallikarjunaswamy — 8051 Microcontroller.