PART I IMPLEMENTING SDLC

- *CHAPTER 1:* **Getting Started**
- *CHAPTER 2:* **Existing And Proposed System**
- *CHAPTER 3:* **Form Designing**
- *CHAPTER 4:* **Management And Planning**
- *CHAPTER 5:* **Design And Coding**
- *CHAPTER 6:* **Data Presentation**

JROBOT: LEGO ROBOT SCANNER
FEATURING
CAPTURE IT!

By

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Certificate

We accept the work contained in this report as confirming to the required standard for the partial fulfillment of the degree of Bachelors in Computer Science (BCS).

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Dedication

To all those, who helped me in giving this software and hardware the physical existence through their generous encouragement and support. Especially to my parents and family who have always been sources of inspiration for me.

Acknowledgements

All praise to **Allah Almighty**, the most merciful and compassionate, who enabled me to complete this project.

I am also thankful to our Prophet **Hazrat Mohammad (PBUH)**, because, His life is pattern for me to follow so I was able to accomplish the task of completing this project.

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Abstract

Since the industrial revolution and with growing technological advancements, mankind has been busy in making intelligent machines in order to lessen the workload on humans. A robot is a versatile mechanical device equipped with actuators and sensors under control of a computing system. In this project a robot called Lego Robot Scanner is built that scans the picture and software is developed with the help of which various image editing operations may be performed on the scanned image. The Lego Scanner scans the picture pixel by pixel. It reads the pixel values by moving the light sensor on the picture along x-axis in back and forth fashion. Then it sends the pixel values of each scan line from RCX to the PC. On PC side an array is allocated that keeps on accumulating these pixel values until all the pixels are read. After this, program running on PC side constructs an image from that array and displays it on the screen also creating the image file. Later on various operations can be performed on that image as desired by the user.

Declaration

I hereby, declare that project neither a whole nor as a part there of has been copied out from any source. It is fully declared that I have developed this system and the accompanied report entirely on the basis of my personal efforts under the sincere guidance of my supervisor. If any part of this report is proved to be copied out or found to be reported, I shall stand by the consequences. No portion of the work presented in this report has been submitted in support of any application for any other degree or qualification of this or any other institute, university or other.

Faisal Ramzan

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