

PROJECT ABSTRACT

- **Project Title:-** Reading and translating robot

- **Implementation:-**

Week 1 (18 May-25 May):-

- i) To learn basics of image processing and MATLAB.
- ii) To acquire the necessary components forming the mechanical and electrical part of the robot.
- iii) Discussing image processing with mentors and getting acquainted about the knowledge of image processing.

Week 2 (26 May-1 June):-

- i) Implementing and testing the basics of image processing using webcam (Identifying the text in the image).
- ii) Designing the mechanical structure of robot using Solidworks.

Week 3 (2 June- 8 June):-

- i) Assembling the bot and making it pronounce the recorded text using text to speech module.
- ii) Learning the basics of internet controlled bot for translation.

Week 4 (9 June- 15 June):-

- i) Making a basic mechanism to turn the pages of a book.
- ii) Implementing internet controlled translation and testing it for some texts in other languages.

Week 5 (16 June- 22 June):-

- i) Completing the mechanism of bot and giving finishing touches to the bot
- ii) Final testing the bot for all types texts.

- Components and cost:-

- 1) Arduino:- Rs. 900
- 2) Webcam module:- Rs. 1000
- 3) Lead acid battery:- Rs. 250
- 4) Other components.

- What do we aim to learn from this project:-

- 1) Image processing is a major aspect to learn from this project.
- 2) We aim to learn about internet controlled robot and also the mechanism of reading and turning the pages of a book.
- 3) We also aim to learn about translation using internet.