Progress Presentation-I

e-Yantra Summer Intership-2017
Minibot Blockly

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Overview of Project

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Overview of Project
Overview of Task
Task Accomplised

- Project: **Minibot Blockly**
- Objective: To make a miniBot and link it with the web based application Blockly
- Deliverables: 1) Folder containing related files of the web application
  2) MiniBot
  3) Related experiments and Documentation

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Task No.	Task	Deadline
1.	Learn and Test Spark V robot	2 days
2.	Propose Hardware and 3D Design	3 days
3.	Make the miniBot	5 days
4.	Learn Blockly Documentation	3 days
5.	Make MiniBOT controller section in Blockly interface and add related functions	5 days
6.	Compiler to convert C to HEX File	2 days
7.	Try experiments and test application	3 days
8.	Add features to flash HEX directly from website to robot	2 days
9.	Prepare related documents,experiment files of working model	4 days

Task Accomplised

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- Task 1- Learnt Spark V and tested some experiments on the robot.
- Task 2-
  1. Individual components were studied thoroughly.
  2. The Excel sheet of components was made. Click COMPONENT LIST
  3. Designed the interfacing diagram for miniBOT.
  4. The 3D model is ready. Click 3D MODEL
- Task 3- Making of minibot is in progress.
- Task 4- Installation of related software done. Studied basics of Laravel framework. A block for the Speaker Section was created.

Interfacing diagram-IR Sensor

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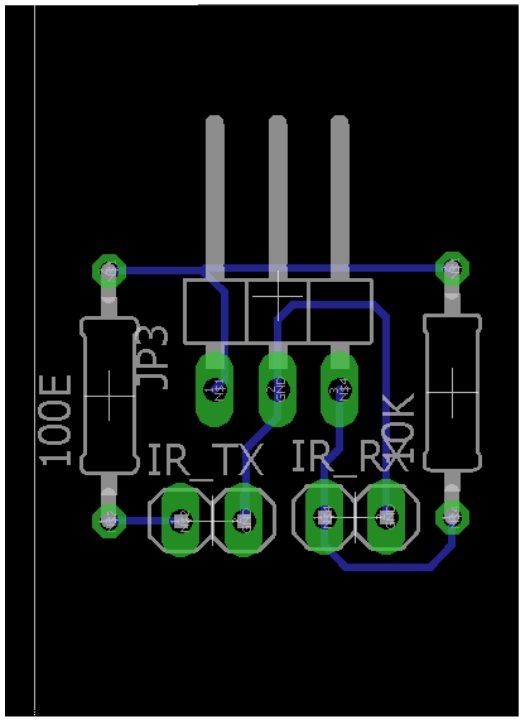
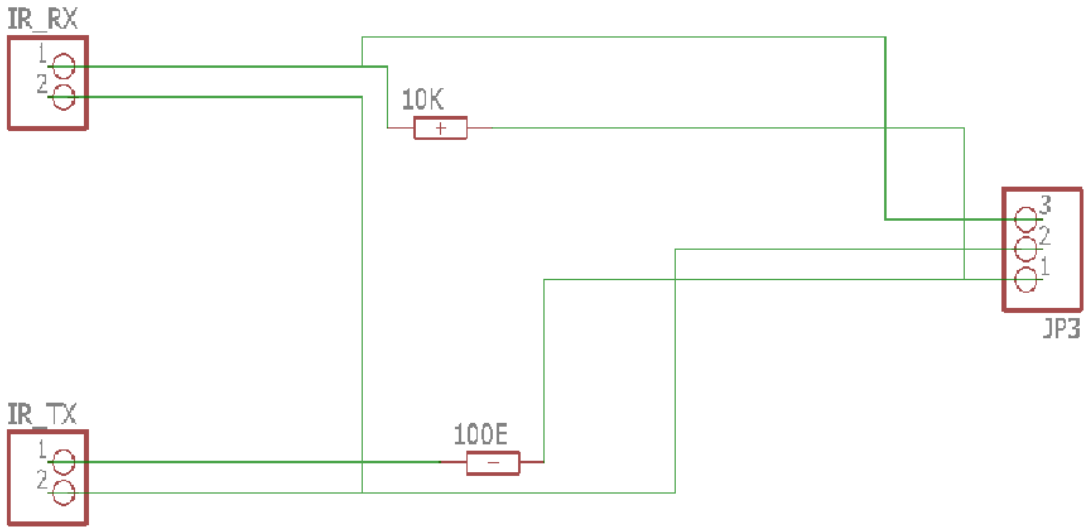
Schematic and Eagle Layout of IR Sensor





Interfacing diagram-White Line Sensor

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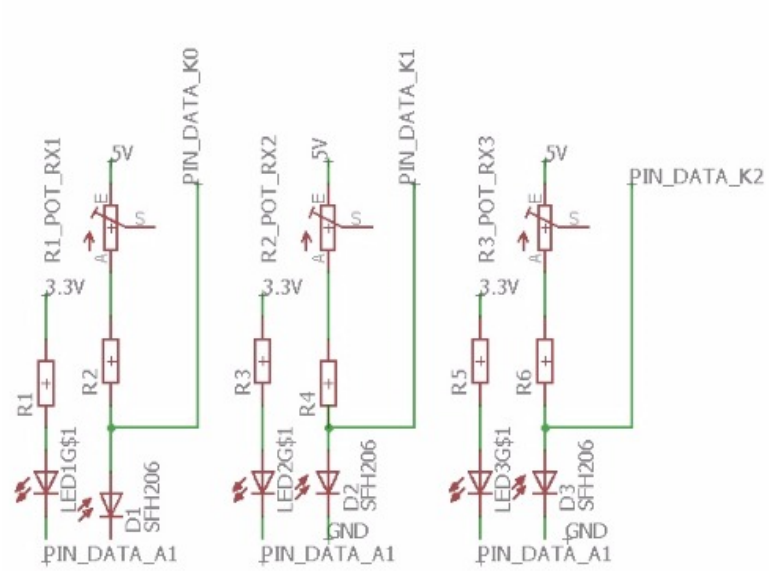
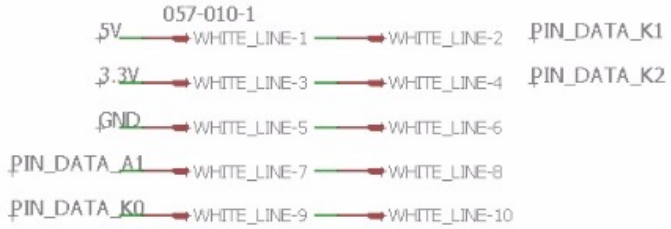
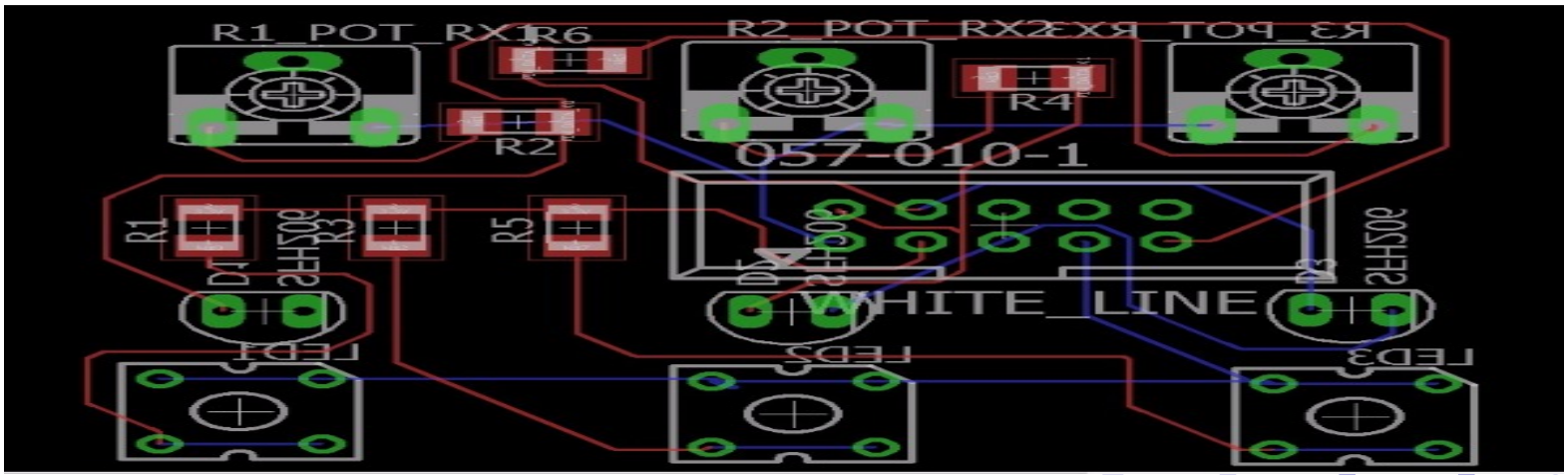
Schematic and Eagle Layout of White Line Sensor







Speaker

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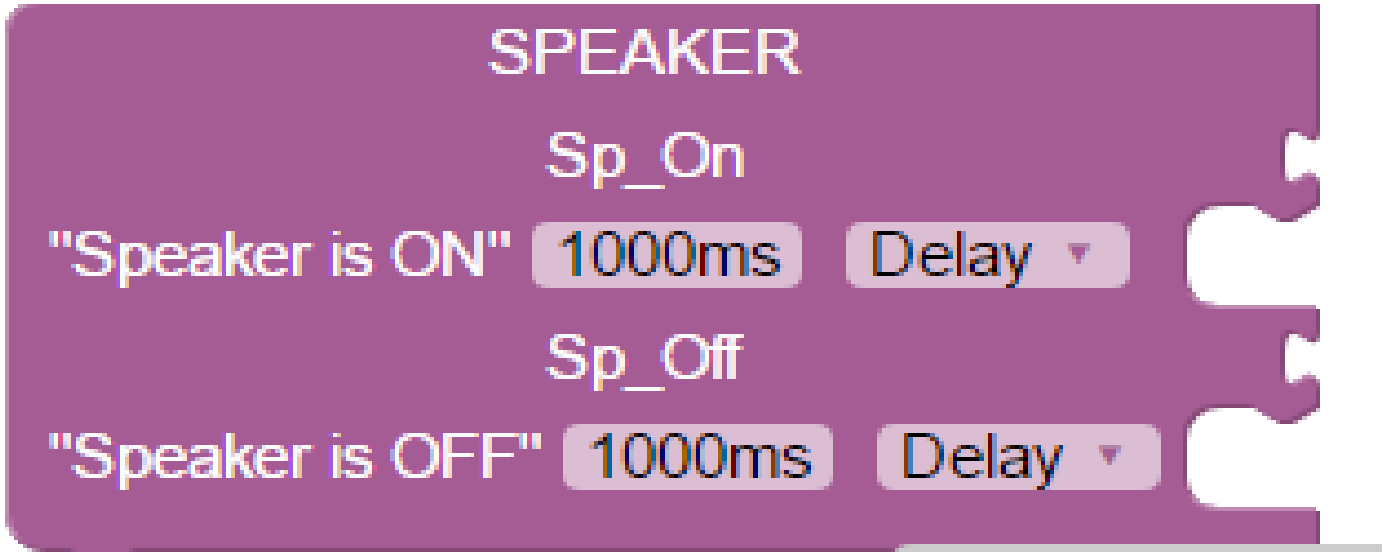
Speaker Block in Blockly



Challenges Faced

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1. Design Complexity.
2. 3-D Model.
3. Components and their respective values.
4. Downsizing and functionality.
5. Power Management Design.
6. Making the bootloader and learning In System Programming.
7. Resolving issues with 2-sided PCB.

Future Plans

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- Build the MiniBOT.
- Make the compiler to convert C to HEX file.
- Making Blockly interfacing for add-on's.
- Fixing certain bugs of Blockly code.
- Testing Blockly for all the modules.

Thank You

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THANK YOU !!!