Team Id & Team Name

Project Name

1. How much percentage of work has been left in the project completion? What is the expected date of finishing up the project?

   1. 20% of the project has been left in completion of the project. It is expected to finish before 8th May 2012.

2. According to your Plan of Action, what work was planned to be completed till 1st June?
   1. Finalizing the electronics circuits on PCBs
   2. Textual communication
   3.Completing File transfer
   4. Starting auto-allignment

3. What work has been actually completed?
   1. Started the communication between two computers.
   2. Receive the characters(typed on the transmitter side) at the receiver side.
   3. Given the type of file,we could receive different types of files like .txt,.png,.rar,.zip successfully at the receiver end.

4. What purchases were made till 1st June?

   1. Arduinos.

   2. Photo-diodes.

   3. Laser-diodes.

   4. Servo motors.

   5. LEDs,PCBs.

5. What problems did you face with respect to project work in this week? Did you find a solution to them or are they still pending? What was the solution to these problems?

   * Problems.

   1. Initially, there occurred unexpected garbage in between the data transfer if laptops with different clock frequencies were used.But the problem was solved later.

   2. Unable to achieve high speed data transfer.

   3. Occurrence of garbage during the data transfer arbitrarily.

* Solutions.

1.As a temporary solution to problem of clock synchronization,we started to work on laptops with same clock frequency.

2. We also planned to use EEPROM for storing the data before/after sending to Arduinos so that different clock frequencies would not matter.

3. After many changes in code, we came to conclusion that there is no need of giving manual delay between consecutive bits.

4. Hence the problem of clock synchronization was solved without using EEPROM..

5. Sending a check byte after regular intervals will solve the problem of garbage.

5. What was discussed in the meetings with your mentor this week?

1. Discussion on the problems regarding clock synchronization with Ashay and Debajyoti.
2. Got to know about different functions in PROCESSING for file transfer.
3. Feasible mechanical structures for auto-alignment were discussed.

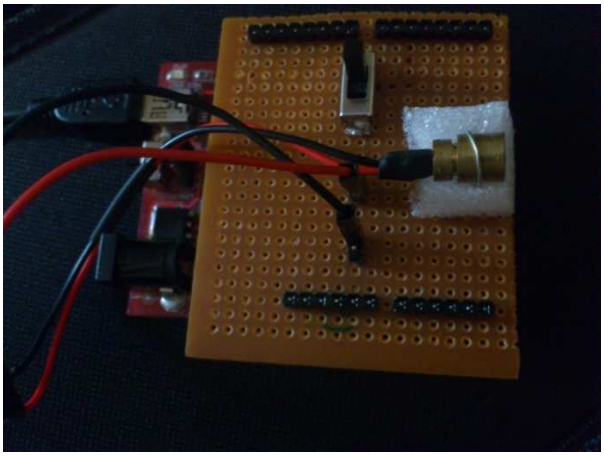
6. What is the work-plan for the next week?

1. Constructing the structure for auto alignment.

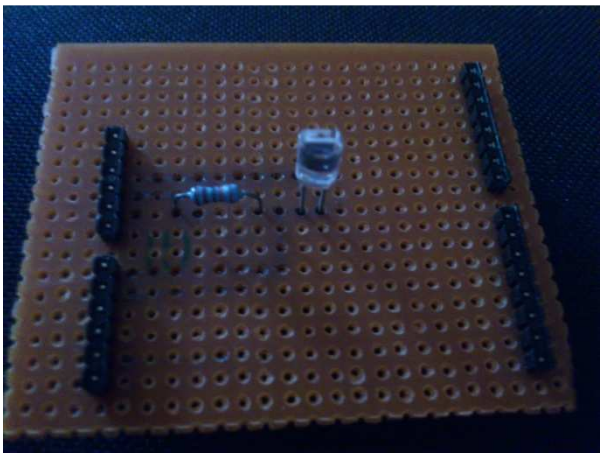
2. Designing a structure for two way communication.

3. Improve the code so that the occurence of garbage between the data transfer can be eliminated.

7. Project Pictures

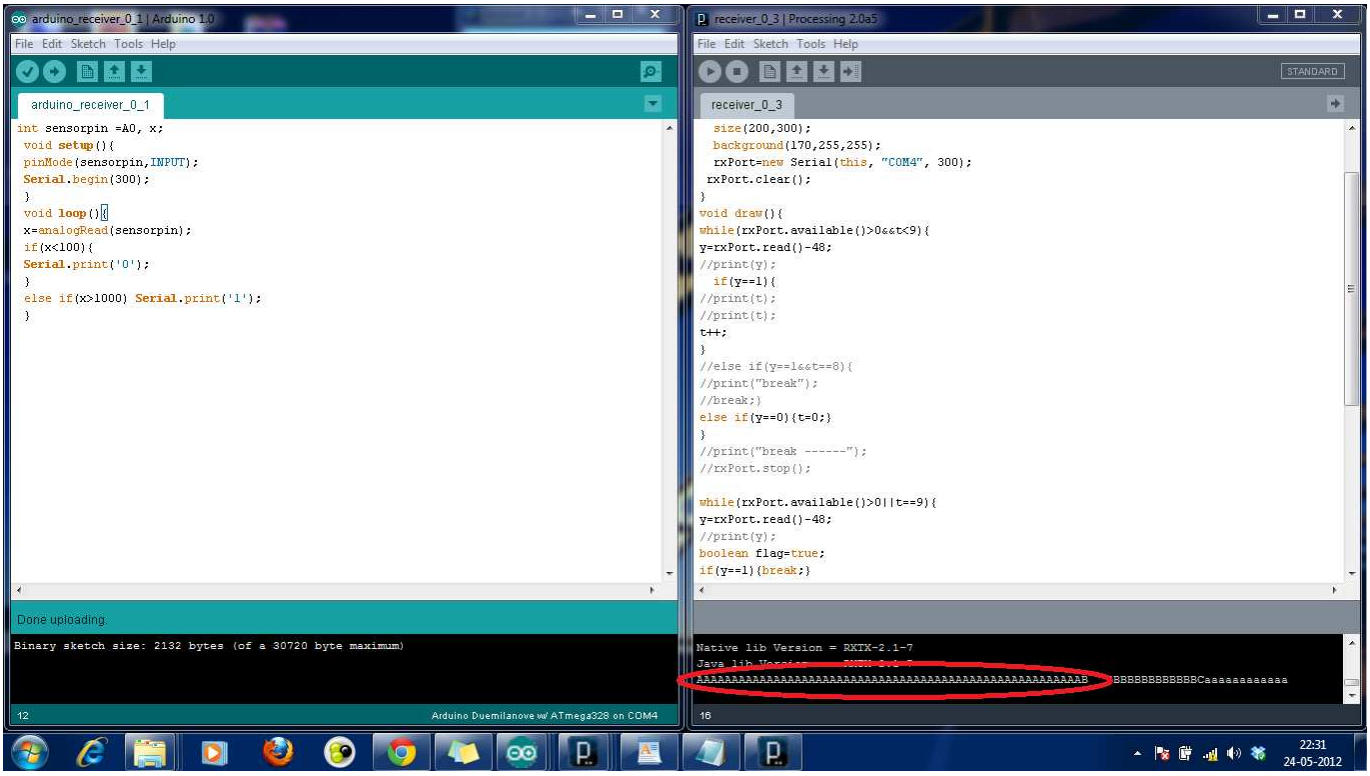


Transmitter Circuit



Receiver Circuit.

Project setup.



Textual communication between two laptops using laser.

This pic shows the text received on the receiver side.