









**Figure 11:** Shows the Enclosure project implemented

## 5. Applications

- Can be used in factory automation.
- Can be use machine control
- Medical equipment and devices.
- Textile industry

## 6. Conclusion

As a conclusion, the project was aim the objective to monitor and control (protection) the temperature of stepper motor which interface with master slave microcontroller's communication then display at PC and LCD.

## References

- [1] N. Monoranjan Singh, K. C. Sarma, "Low cost PC based real time data logging system using PCs parallel port for slowly varying signals", Journal of Assam Science Society, Vol 50 (1-2), pp 36-41 (Dec 2009)
- [2] N. Monoranjan Singh, K. C. Sarma, "Design of PIC 12F675 microcontroller based data acquisition system for slowly varying signals", Jl. of Instrum. Soc. of India, Vol 40 (1), pp 15-17 (March 2010)
- [3] Atmel AVR Microcontroller Primer: Programming and Interfacing, Daniel J. Pack , Morgan & Claypool Publishers, 2008
- [4] Data sheet of LM35.
- [5] THE PIC MICROCONTROLLER AND EMBEDDED SYSTEMS Using Assembly and C, Pearson Education international, 2011
- [6] STEPPER MOTOR REFERENCE DESIGN , Silicon Laboratories Inc.
- [7] 8051 MicrocontrollersAn Applications-Based Introduction David Calcutt ,Fred Cowan ,Hassan Parchizadeh, Linacre House, Jordan Hill, Oxford OX2 8DP , 2004
- [8] www.robotshop.com access on 5/1/2016 at 4.40 pm
- [9] Advanced PIC Microcontroller Projects in C, Dogan Ibrahim, Linacre House, Jordan Hill, Oxford OX2 8DP, UK. 2008
- [10] www.gravitech.us Access on 29/12/2015 at 10 am