DON BOSCO INSTITUTE OF TECHNOLOGY

Dept of
ELECTRONICS and COMMUNICATION

ELECTRONICA

SPACE TALKZ

Beyond What Light Can See...

With Nitin Karthik & Rohan

Thursday | October 4th | 2:00 pm | Venue : SH2

ARDUINO WORKSHOP REPORT 2018

Arduino two days' Workshop took place on 27 September 2018 and 29 September 2018. It was conducted for 3rd semester ECE students, Don Bosco Institute of Technology by 7th semester ECE students, Don Bosco Institute of technology. The workshop was inaugurated on 27/09/2018 in New Seminar Hall, Don Bosco Institute of Technology by our Chief Guest Hemanth Kumar V. The whole workshop was divided into three sessions. The first session of the Workshop was conducted on 27th September 2018 from 11:00AM to 2:00PM. The second session was conducted on 29th September 2018 from 9:00AM to 1:00PM. Then the third session was from 2:00PM to 5:00PM.

DAY 1: SESSION 1

The entire workshop was attended by 108 students who had paid Rs.750 for one batch consisting of three students. The remitted fees included all the components that was required for the workshop. The workshop initiation was done by Kruthika. C. S of 7th semester ECE department.

STEP 1: Explained about the Microcontrollers.

STEP 2: Different types of memories.

STEP 3: Explanation about Arduino board.

STEP 4: Executing the LED Blink program.

STEP 5: Explanation on program structure, Instruction Set, Control loops.

STEP 6: Explanation and execution of RGB LED.

After this the further steps were taken up by Nithin Kulkarni of 7th semester ECE department.

STEP 7: About microcontroller and Microprocessor.

STEP 8: Explanation on Architecture of Microcontroller.

STEP 9: Explanation on Architecture of Microprocessor.

STEP 10: Difference between Microcontroller and Microprocessor.

DAY 2: SESSION 2

The second session was conducted on 29th September 2018. Initially the session was started by Nithin N of 7th semester ECE department.

STEP 1: General explanation on how sensors work.

STEP 2: Explained about different types of sensors like moisture sensor, IR sensor, ultrasonic sensor, rain drop sensor.

STEP 3: Program using Infrared sensor and controlling LED using Infrared sensor.

The further steps were continued by Nithin Kulkarni.

STEP 1: What is a motor driver, why is it used.

STEP 2: How to connect BO motor to a driver.

STEP 3: Clock wise and anti-clock wise rotation of a motor.

The further steps were continued by Kruthika. C. S

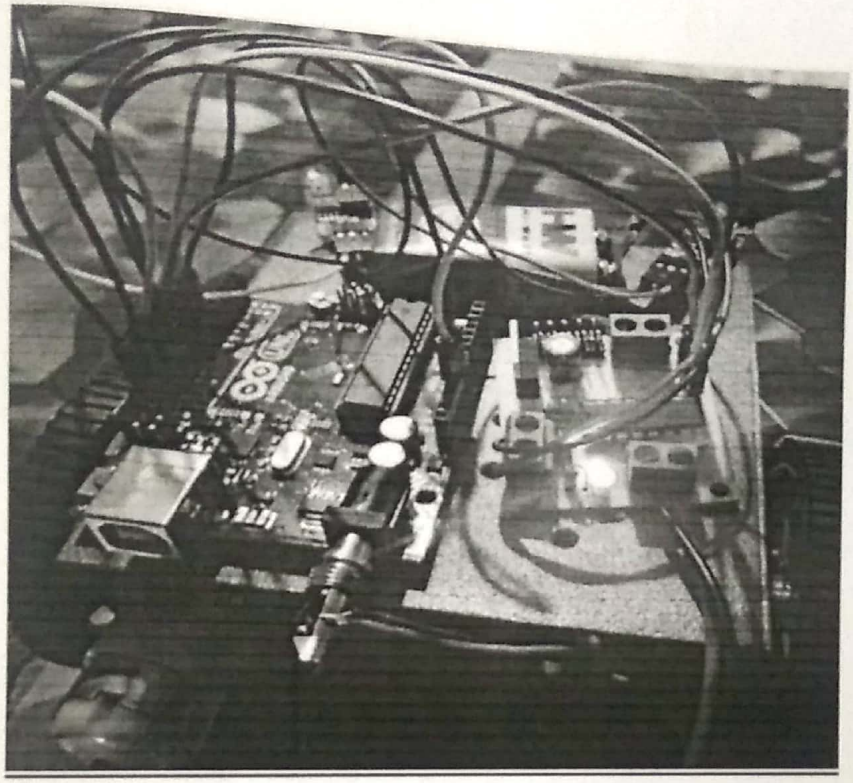
STEP 1: Explanation on what is serial communication, what is bit rate and baud rate, and difference between them.

STEP 2: Programming based on serial communication.

STEP 3: Controlling LED using serial communication.

DAY 2: SESSION 3

In the third session a task was given for all the group to build an obstacle avoidance robot based on the explanation and demonstration on individual components in previous sessions.



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