Lab 13 & 14

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Introduction:

The lab 13 and 14 was also performed in the physical lab and by continuing lab 11 and 12 work at the last lab we just run the code on the computer software and in this lab we were guided by the hardware and give the knowledge about the hardware interaction

we (Group) was then separately guided by sir and we were given the bored and chips ics and wires.

Task:

This time our task was to implement the last code of lab 11 and 12 on the physical hardware but before this we were asked to burn the program in the given ICs

After that we started our work on that and finally we implemented we made mistakes but at the end we are done with running our code on hardware.

Code:

.INCLUDE"M328pDEF.INC"

.ORG 0

LDI R16, HIGH (RAMEND)

OUT SPH, R16

LDI R16, LOW (RAMEND)

OUT SPL, R16

LDI R19, 0xFF

OUT DDRB,R19

START:

LDI R20, 0x7E

OUT PORTB,R20

RCALL DELAY

LDI R21, 0x30

OUT PORTB,R21

RCALL DELAY

LDI R22, 0x6D

OUT PORTB,R22

RCALL DELAY

LDI R23, 0x79

OUT PORTB,R23

RCALL DELAY

LDI R24, 0x33

OUT PORTB,R24

RCALL DELAY

LDI R25, 0x5B

OUT PORTB,R25

RCALL DELAY

LDI R26, 0x5F

OUT PORTB,R26

RCALL DELAY

LDI R27, 0x70

OUT PORTB,R27

RCALL DELAY

LDI R28, 0x7F

OUT PORTB,R28

RCALL DELAY

LDI R30, 0x7B

OUT PORTB,R30

RCALL DELAY

JMP START

DELAY:

LDI R16, 0xFF

AGAIN3: LDI R17, 0xFF

AGAIN2: LDI R18, 0x5

AGAIN1: DEC R18

BRNE AGAIN1

DEC R17

BRNE AGAIN2

DEC R16

BRNE AGAIN3

RET

Result:

