



PO1_DGC Calculator
(HSI)
Status : Draft

Table of contents

1. History Table
2. Block Diagram
3. Pins
4. Features

Index of figures

- Figure 1 : History Table 3
- Figure 2 : Project Block Diagram 4
- Figure 3 : Features Table 5

History Table

Version	Author	Date	Change
1.0	Areej AymanHelal	23/1/2020	Initial creation

Figure 1

Block Diagram

PO1_DGC Calculator

Areej Helal | January 23, 2020

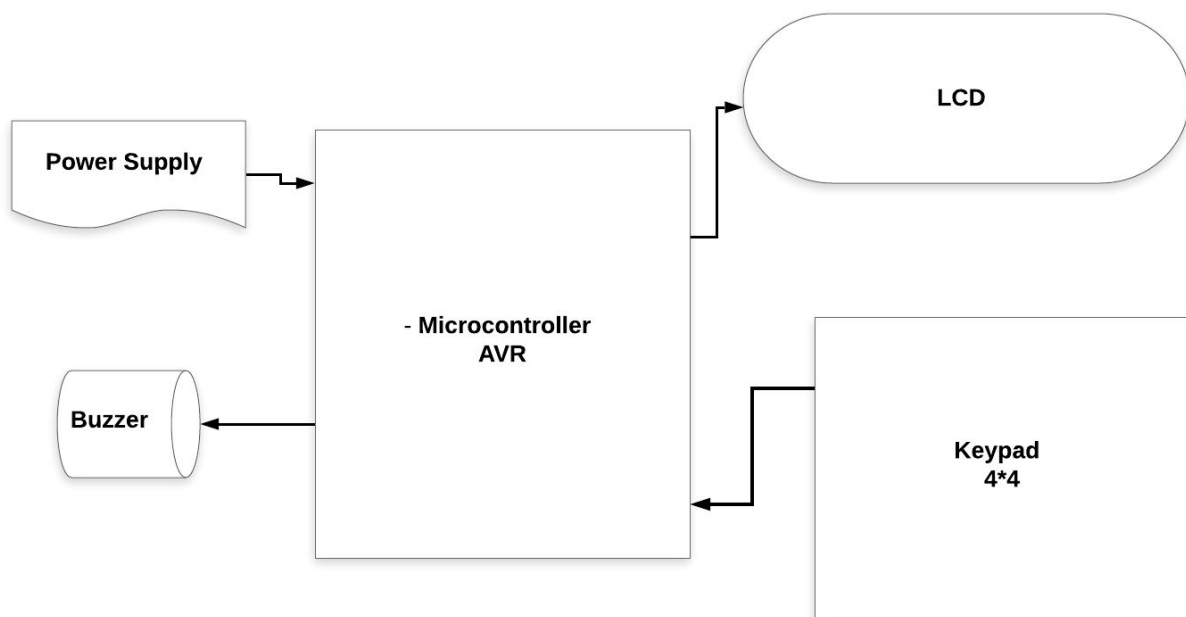


Figure 2

Microcontroller Pins

- 8 Pins from Port B connected to the Keypad
- LCD Pins :
 - ❑ 8 Pins from Port A connected to Data Pins
 - ❑ 3 Pins from Port D connected to Rs , Rw and Enable
 - ❑ 2 Pins 5v connected to Anode and Vdd
 - ❑ 2 Pins ground connected to cathode and Vss
- 1 Pin from Port D connected to Buzzer
- 1 Pin ground connected to Buzzer

Features

Requirement Name	Requirement Description
Req_PO1_DGC_CYRS_001_v1.0 Imp#HW	Hardware shall turn the calculator on/off when the button is pressed.
Req_PO1_DGC_CYRS_002_v1.0 Imp#HW	A number (0-9) or an operation (+, -, *, /, =) shall be assigned when its corresponding key is pressed.
Req_PO1_DGC_CYRS_003_v1.0 Imp#HW	A number (0-9) or an operation (+, -, *, /, =) shall be displayed on LCD when its corresponding key is pressed.
Req_PO1_DGC_CYRS_004_v1.0 Imp#HW	Different tunes shall be played for each button when pressed.

Figure 3