

FPGA Assignment

kanekal kousar

November 3, 2022

1 Abstract

-Through this manual, we learn how to display sum of two numbers on LCD using fpga

2 components

components	values	quantity
Vaman Board	-	1
LCD	16x2	1
bread board	-	1
jump wires	-	20

TABLE I

step 1

-Connect the 5V pin of the Vaman to an extreme pin of the Breadboard Let this pin be V cc .

step 2

-Connect the GND pin of the Vaman to the opposite extreme pin of the Breadboard.

step 3

-plug the LCD in fig.7 to breadboard

step 4

-make the connections of vaman board and LCD according to tableII

Pygmy	LCD pins	LCD pin label	LCD pin Description
GND	1	GND	
5V	2	Vcc	
GND	3	Vee	Contrast
10	4	RS	Register Select
GND	5	R/W	read/write
9	6	EN	Enable
14	11	DB4	Serial connection
13	12	DB5	Serial connection
12	13	DB6	Serial connection
11	14	DB7	Serial connection
5V	15	LED+	Backlight
GND	16	LED-	Backlight

LCD 16X2

GND
VCC
VEE
RS
RW
EN
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
LED+
LED-

CODE

-After connection write the following verilog code

https://github.com/kkousar/KOUSAR_FWC/tree/main/fpga/code

TABLE II :Vaman to LCD connections