

**LAPORAN RESMI  
PRAKTIKUM 6 ARSITEKTUR KOMPUTER**

**“DOT MATRIX DISPLAY”**



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## **BAB I**

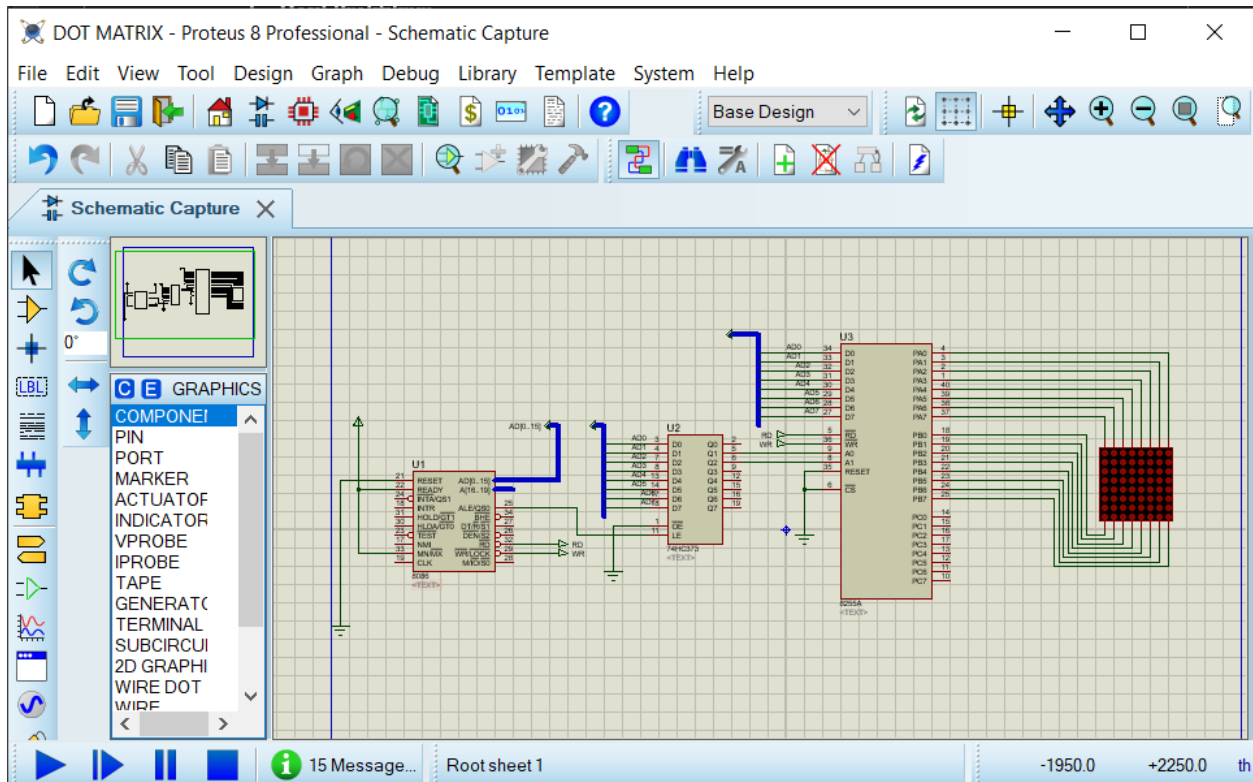
### **PENDAHULUAN**

- 1. Alat atau Bahan Praktikum**
  - a. Proteus Professional
  - b. Emu8086**

## BAB II ANALISA DAN KESIMPULAN

### 1. Hasil Praktikum

#### a. Rangkaian Dot Matrix Display:



#### b. Source code tampilan “HI”:

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#make\_bin#

; BIN is plain binary format similar to .com format, but not limited to 1 se

; All values between # are directives, these values are saved into a separat

; Before loading .bin file emulator reads .binf file with the same file name

; All directives are optional, if you don't need them, delete them.

; set loading address, .bin file will be loaded to this address:

#LOAD\_SEGMENT=0500h#

#LOAD\_OFFSET=0000h#

; set entry point:

#CS=0500h# ; same as loading segment

#IP=0000h# ; same as loading offset

; set segment registers

#DS=0500h# ; same as loading segment

#ES=0500h# ; same as loading segment

; set stack

#SS=0500h# ; same as loading segment

#SP=FFFEh# ; set to top of loading segment

; set general registers (optional)

#AX=0000h#

#BX=0000h#

#CX=0000h#

#DX=0000h#

#SI=0000h#

#DI=0000h#

#BP=0000h#

; add your code here

DATA SEGMENT

PORTA EQU 00H

PORTB EQU 02H

PORTC EQU 04H

PORT\_CON EQU 06H

DATA ENDS

CODE SEGMENT

MOV AX, DATA

MOV DS, AX

org 0000h

;add your code here

START:

MOV DX, PORT\_CON

MOV AL, 10000000B

OUT DX, AL

XX:

CALL X3

JMP XX

line: 68 col: 33

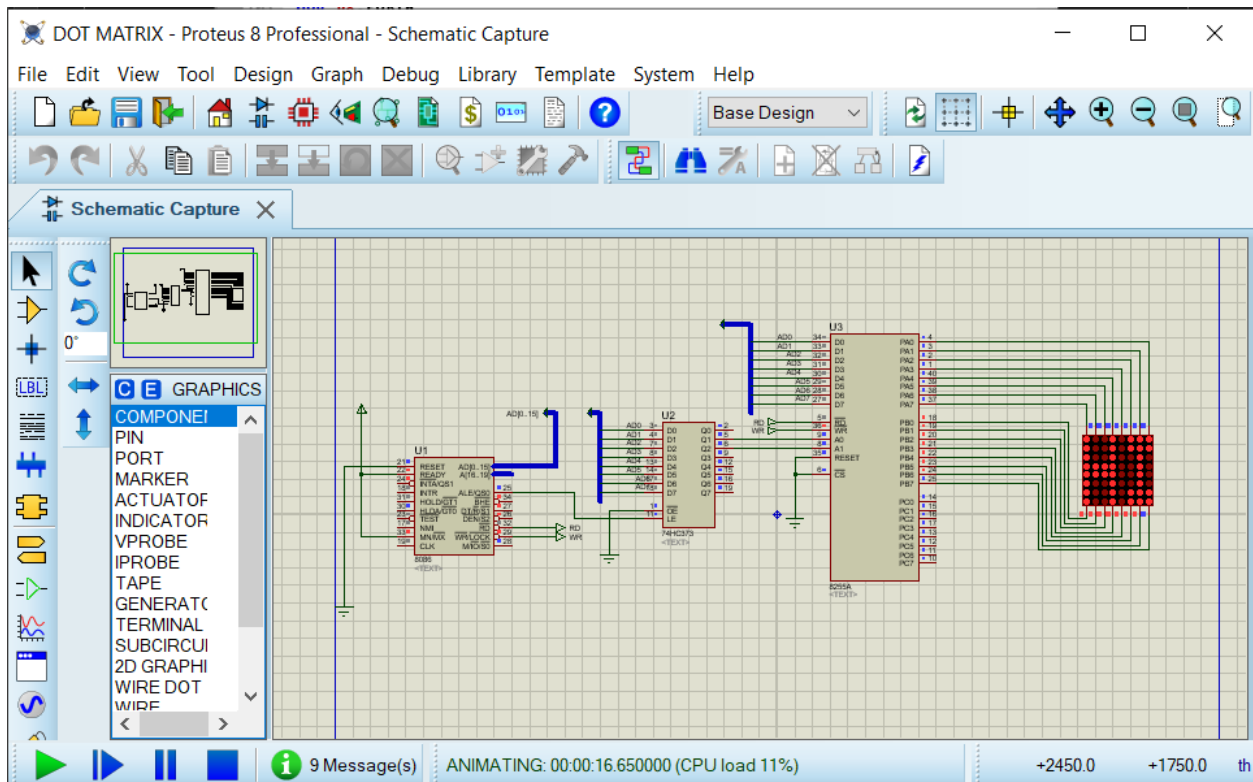
drag a file here to open

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056
057 XX:
058 CALL X3
059 JMP XX
060
061 X3:
062 MOV AL,00000000B;KONTEN
063 MOV DX,PORTA
064 OUT DX,AL
065 MOV AL,11111110B
066 MOV DX,PORTB
067 OUT DX,AL
068 MOV AL,10010111B;KONTEN
069 MOV DX,PORTA
070 OUT DX,AL
071 MOV AL,11111101B
072 MOV DX,PORTB
073 OUT DX,AL
074 MOV AL,10010010B;KONTEN
075 MOV DX,PORTA
076 OUT DX,AL
077 MOV AL,1111011B
078 MOV DX,PORTB
079 OUT DX,AL
080 MOV AL,10010010B;KONTEN
081 MOV DX,PORTA
082 OUT DX,AL
083 MOV AL,1111011B
084 MOV DX,PORTB
085 OUT DX,AL
086 MOV AL,11110010B;KONTEN
087 MOV DX,PORTA
088 OUT DX,AL
089 MOV AL,1110111B
090 MOV DX,PORTB
091 OUT DX,AL
092 MOV AL,10010010B;KONTEN
093 MOV DX,PORTA
094 OUT DX,AL
095 MOV AL,1101111B
096 MOV DX,PORTB
097 OUT DX,AL
098 MOV AL,10010010B;KONTEN
099 MOV DX,PORTA
100 OUT DX,AL
101 MOV AL,1011111B
102 MOV DX,PORTB
103 OUT DX,AL
104 MOV AL,1001011B;KONTEN
105 MOV DX,PORTA
106 OUT DX,AL
107 MOV AL,0111111B
108 MOV DX,PORTB
109 OUT DX,AL
110 RET
111 CODE ENDS
112 END
113 HLT ; halt!
114
```

line: 68 col: 33 drag a file here to open

c. Hasil Run:



## 2. Pembahasan

Praktikum dot matrix display kali ini dilakukan dengan prinsip yang mirip dengan prinsip keypad interfacing, karena sama-sama menggunakan konsep matriks (kolom dan baris). Namun, keypad interfacing menjadikan masing-masing port yang disambungkan sebagai output dan input, sementara dot matrix menjadikan kedua port yang disambungkan output.

## 3. Kesimpulan

Dari praktikum kali ini, kita dapat menyimpulkan bahwa dot matrix display dapat diatur tampilannya menggunakan prinsip matrix dan menjadikan kedua port yang terhubung sebagai output