

BÁO CÁO THỰC HÀNH TUẦN 10

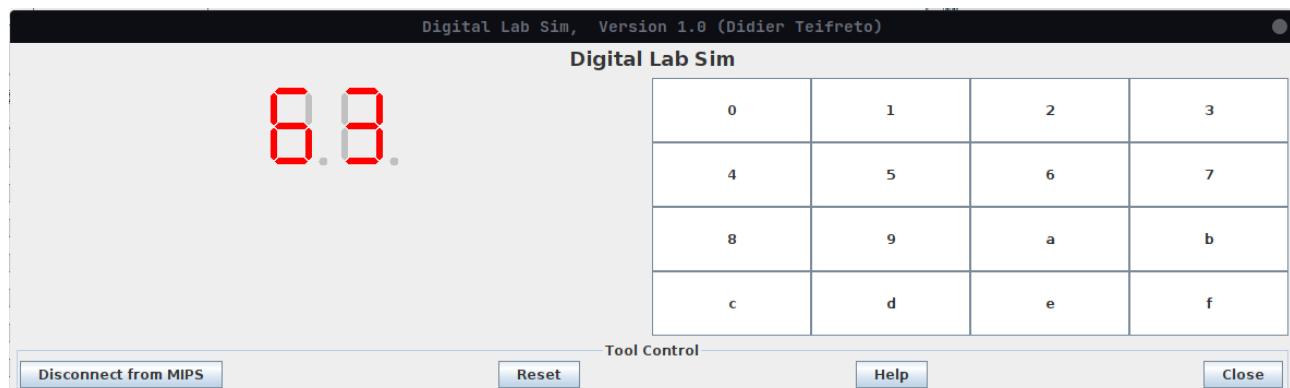
Lương Thị Tâm – 20194663

Bài 1:

*Mã nguồn:

```
1 .eqv SEVENSEG_LEFT    0xFFFF0011# Dia chi cua den led 7 doan trai.
2                                #      Bit 0 = doan a;
3                                #      Bit 1 = doan b; ...
4                                #      Bit 7 = dau .
5 .eqv SEVENSEG_RIGHT   0xFFFF0010# Dia chi cua den led 7 doan phai
6 .text
7 #1: 6
8 #2: 91
9 #3: 79
10 #4: 102
11 #5: 109
12 #6: 125
13 #7: 7
14 #8: 127
15 #9: 111
16 main: li    $a0, 125          # set value for segments
17 jal    SHOW_7SEG_LEFT        # show
18 li    $a0, 79               # set value for segments
19 jal    SHOW_7SEG_RIGHT       # show
20 exit: li    $v0, 10
21 syscall
22 endmain:
23 #-----
24 # Function SHOW_7SEG_LEFT : turn on/off the 7seg
25 # param[in] $a0  value to shown
26 # remark   $t0 changed
27 #-----
28 SHOW_7SEG_LEFT: li    $t0, SEVENSEG_LEFT# assign port's address
29         sb    $a0, 0($t0)# assign new value
30         jr    $ra
31 #-----
32 # Function SHOW_7SEG_RIGHT : turn on/off the 7seg
33 # param[in] $a0  value to shown
34 # remark   $t0 changed
35 #-----
36 SHOW_7SEG_RIGHT: li    $t0, SEVENSEG_RIGHT# assign port's address
37         sb    $a0, 0($t0)# assign new value
38         jr    $ra
```

*Ảnh chụp minh họa kết quả:



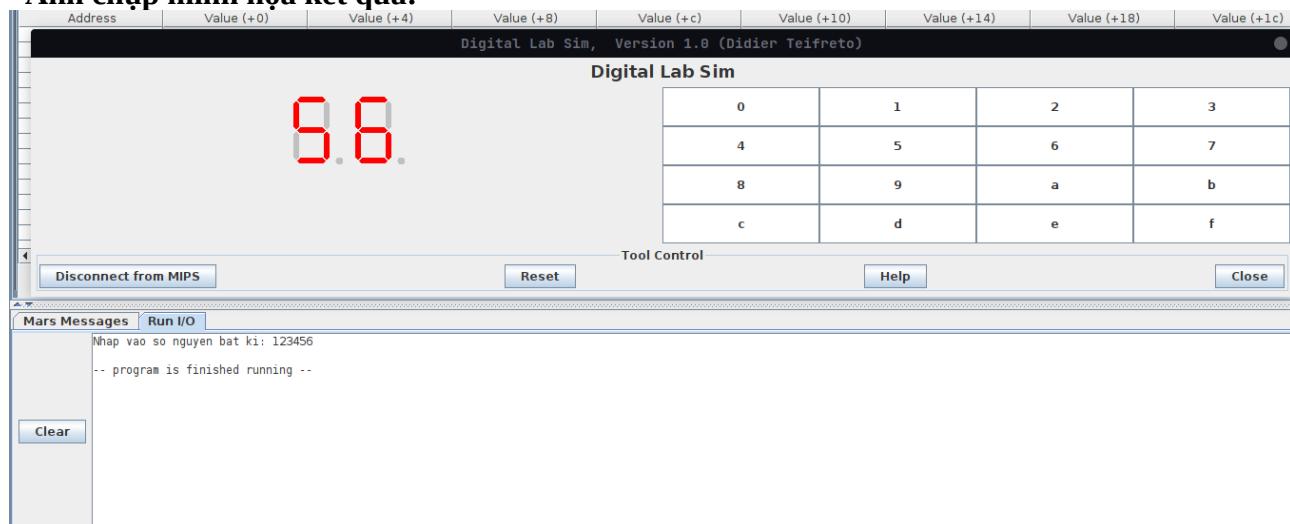
Bài 2:

*Mã nguồn:

```
1 .eqv SEVENSEG_LEFT 0xFFFFF0011# Dia chi cua den led 7 doan trai.
2 #      Bit 0 = doan a;
3 #      Bit 1 = doan b; ...
4 #      Bit 7 = dau .
5 .eqv SEVENSEG_RIGHT 0xFFFFF0010# Dia chi cua den led 7 doan phai
6 .data
7 message: .asciiz "Nhap vao so nguyen bat ki: "
8 arr:    .byte 63,6,91,79,102,109,125,7,127,111
9 .text
10 #0:63
11 #1: 6
12 #2: 91
13 #3: 79
14 #4: 102
15 #5: 109
16 #6: 125
17 #7: 7
18 #8: 127
19 #9: 111
20     la $t1, arr
21     li $v0, 4
22     la $a0, message
23     syscall
24     li $v0, 5  #nhap vao so nguyen
25     syscall
26     addi $s0, $v0, 0
27     li $s5, 100
28     div $s0, $s5
29     mfhi $s1
30     li $s5, 10
31     div $s1, $s5
32     mfhi $s2 # lay ra hang don vi
33     mflo $s3 # lay ra hang chuc
34     add $s4, $t1, $s3
35     lb $a0,0($s4)
36     jal SHOW_7SEG_LEFT          # show

37     add $s4, $t1, $s2
38     lb $a0, 0($s4)
39     jal SHOW_7SEG_RIGHT         # show
40 exit:   li $v0, 10
41     syscall
42 endmain:
43 -----
44 # Function SHOW_7SEG_LEFT : turn on/off the 7seg
45 # param[in] $a0 value to shown
46 # remark   $t0 changed
47 #
48 SHOW_7SEG_LEFT: li $t0, SEVENSEG_LEFT # assign port's address
49     sb $a0, 0($t0)# assign new value
50     jr $ra
51 -----
52 # Function SHOW_7SEG_RIGHT : turn on/off the 7seg
53 # param[in] $a0 value to shown
54 # remark   $t0 changed
55 #
56 SHOW_7SEG_RIGHT: li $t0, SEVENSEG_RIGHT# assign port's address
57     sb $a0, 0($t0)# assign new value
58     jr $ra
```

*Ảnh chụp minh họa kết quả:



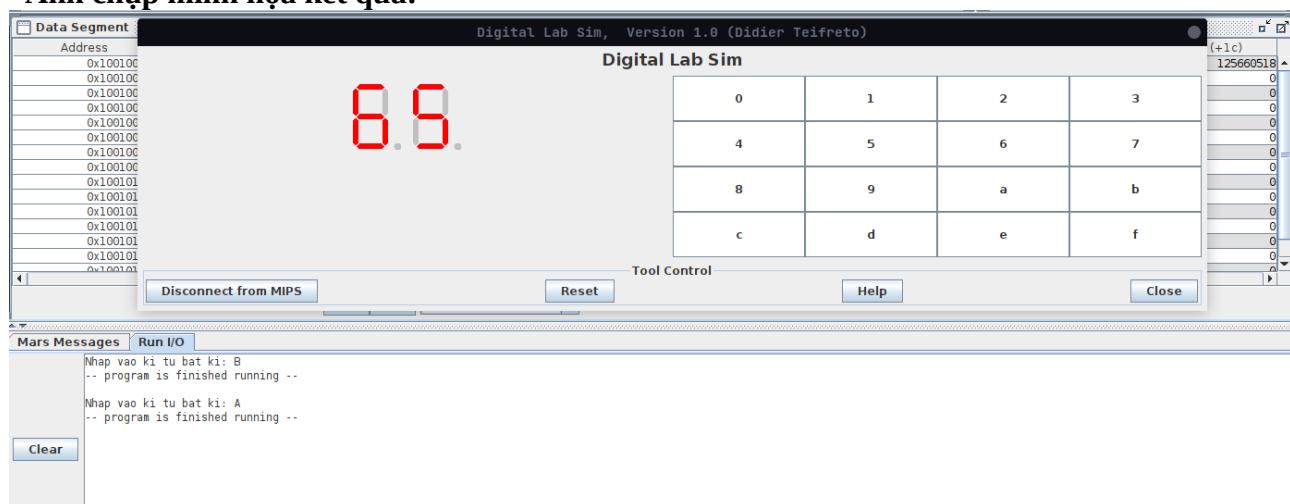
Bài 3:

*Mã nguồn:

```
1 .eqv SEVENSEG_LEFT    0xFFFF0011# Dia chi cua den led 7 doan trai.
2                                # Bit 0 = doan a;
3                                # Bit 1 = doan b; ...
4                                # Bit 7 = dau .
5 .eqv SEVENSEG_RIGHT   0xFFFF0010# Dia chi cua den led 7 doan phai
6 .data
7 message: .asciiz "Nhap vao ki tu bat ki: "
8 arr:     .byte 63,6,91,79,102,109,125,7,127,111
9 .text
10 #0:63
11 #1: 6
12 #2: 91
13 #3: 79
14 #4: 102
15 #5: 109
16 #6: 125
17 #7: 7
18 #8: 127
19 #9: 111
20     la $t1, arr
21     li $v0, 4
22     la $a0, message
23     syscall
24     li $v0, 12    #nhap vao ki tu
25     syscall
26     addi $s0, $v0, 0
27     li $s5, 100
28     div $s0, $s5
29     mfhi $s1
30     li $s5, 10
31     div $s1, $s5
32     mfhi $s2 # lay ra hang don vi
33     mflo $s3 # lay ra hang chuc
34     add $s4, $t1, $s3
35     lb $a0,0($s4)
36     jal SHOW_7SEG_LEFT      # show

37     add $s4, $t1, $s2
38     lb $a0, 0($s4)
39     jal SHOW_7SEG_RIGHT      # show
40 exit:   li   $v0, 10
41     syscall
42 endmain:
43 #-----
44 # Function SHOW_7SEG_LEFT : turn on/off the 7seg
45 # param[in] $a0 value to shown
46 # remark   $t0 changed
47 #
48 SHOW_7SEG_LEFT: li   $t0, SEVENSEG_LEFT # assign port's address
49     sb   $a0, 0($t0)# assign new value
50     jr   $ra
51 #-----
52 # Function SHOW_7SEG_RIGHT : turn on/off the 7seg
53 # param[in] $a0 value to shown
54 # remark   $t0 changed
55 #
56 SHOW_7SEG_RIGHT: li   $t0, SEVENSEG_RIGHT# assign port's address
57     sb   $a0, 0($t0)# assign new value
58     jr   $ra
```

*Ảnh chụp minh họa kết quả:

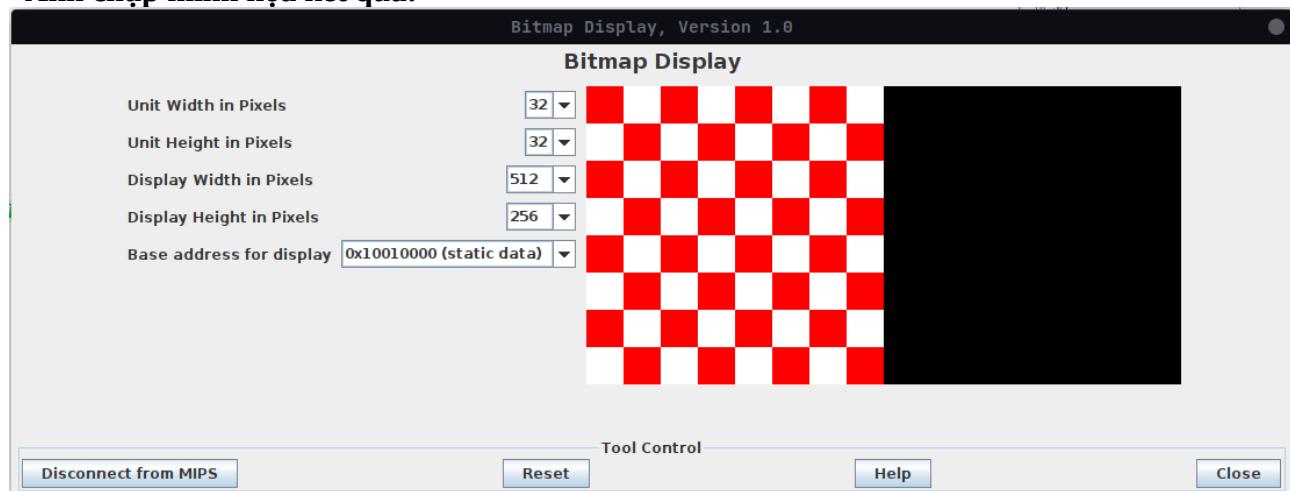


Bài 4:

*Mã nguồn:

```
1 .eqv MONITOR_SCREEN 0x10010000
2 .eqv RED 0x00FF0000
3 .eqv GREEN 0x0000FF00
4 .eqv BLUE 0x000000FF
5 .eqv WHITE 0x00FFFFFF
6 .eqv YELLOW 0x00FFFF00
7 .text
8     li $k0, MONITOR_SCREEN
9     li $t7, 2
10    li $t6, 64
11    li $t1, 0 # TOA DO Y
12    li $t3, 8
13    loop1: slt $t2, $t1, $t3
14        beq $t2, $zero, end_loop1
15        mul $s1, $t1, $t6
16        add $s0, $k0, $s1 # LAY TOA DO X CUA MOI DONG
17        li $t4, 0 #TOA DO X
18    loop2: slt $t2, $t4, $t3
19        beq $t2, $0, end_loop2
20        add $t2, $t4, $t4
21        add $t2, $t2, $t2
22        add $t5, $s0, $t2
23        div $t1, $t7
24        mfhi $s5
25        div $t4, $t7
26        mfhi $s6
27        add $s7, $s5, $s6
28        div $s7, $t7
29        mfhi $s7
30        beq $s7, $0, next # NEU TONG HAI TOA DO CHIA HET CHO 2, IN RA MAU DO, NGUOC LAI IN RA MAU TRANG
31        li $t0, WHITE
32        sw $t0, 0($t5)
33        j next2
34    next: li $t0, RED
35        sw $t0, 0($t5)
36    next2: addi $t4, $t4, 1 # TANG TOA DO X
37        j loop2
38    end_loop2: addi $t1, $t1, 1 # TANG TOA DO Y
39        j loop1
40    end_loop1:
```

*Ảnh chụp minh họa kết quả:



Bài 5:

*Mã nguồn:

```
1 .eqv MONITOR_SCREEN 0x10010000
2 .eqv RED          0x00FF0000
3 .eqv GREEN         0x0000FF00
4 .data
5 mess1: .asciiz "Nhập vào tọa độ điểm thứ nhất:"
6 mess2: .asciiz "Nhập vào tọa độ điểm thứ hai:"
7 mess3: .asciiz "Nhập x: "
8 mess4: .asciiz "Nhập y: "
9 .text
10    li $k0, MONITOR_SCREEN
11
12    li $v0, 4
13    la $a0, mess1
14    syscall
15    li $v0, 4
16    la $a0, mess3
17    syscall
18    li $v0, 5
19    syscall
20    addi $s1, $v0, 0 # tọa do x1
21    li $v0, 4
22    la $a0, mess4
23    syscall
24    li $v0, 5
25    syscall
26    addi $s2, $v0, 0 # tọa do y1
27
28    li $v0, 4
29    la $a0, mess2
30    syscall
31    li $v0, 4
32    la $a0, mess3
33    syscall
34    li $v0, 5
35    syscall
36    addi $s3, $v0, 0 # tọa do x2
37    li $v0, 4
38    la $a0, mess4
39    syscall
40
41    li $v0, 5
42    syscall
43    addi $s4, $v0, 0 # tọa do y2
44    li $t6, 64
45    addi $t5, $s2, 0 # t5 = y1
46    loop1: slt $t1, $s4, $t5
47    bne $t1, $0, end_loop1
48    mul $t2, $t5, $t6
49    add $t2, $k0, $t2
50    addi $t4, $s1, 0 # t4 = x1
51    loop2: slt $t1, $s3, $t4
52    bne $t1, $0, end_loop2
53    add $t3, $t4, $t4
54    add $t3, $t2, $t3
55    beq $t5, $s2, if1 # neu tọa do bang cac dau mut thi in mau do, nguoc lai in xanh
56    beq $t5, $s4, if1
57    beq $t4, $s1, if1
58    beq $t4, $s3, if1
59    li $t0, GREEN
60    sw $t0, 0($t3)
61    addi $t4, $t4, 1
62    j loop2
63    end_loop2: addi $t5, $t5, 1
64    j loop1
65    if1:li $t0, RED # in ra mau do
66    sw $t0, 0($t3)
67    addi $t4, $t4, 1
68    j loop2
69    end_loop1:
70
```

*Ảnh chụp minh họa kết quả:

