

CPEG 330

Assignment 1

1. **[6 marks]** Write a program to find the minimum value in an array of 15 consecutive memory locations starting at address 0x35. The program then displays the value on LEDs connected to PORTB and exists.
2. **[4 marks]** Write a program to continuously read inputs from PORTA. The program accesses the shown lookup table using this input and displays the corresponding value on LEDs connected to PORTB. Assume that inputs read from PORTA are always between 0 and 3.

| Key | Values |
|-----|--------|
| 0 | 13 |
| 1 | 34 |
| 2 | 56 |
| 3 | 92 |

3. **[5 marks]** Write a macro to calculate the below equation based on the contents of one file register and a provided constant value then place the result in another file register. The macro should have the following format.

EQUFF F1, F2, L ; $F1 = 2 * F2 - L$