Array = [321, -12, 134, 0, -2625421, 1256781, 3, 0, 9, -23]

R0 = 0

Assembly Code:

```
                LW R1, R0, (100)            -> array size = 10
                LW R2, R0, (104)            -> max = -inf
                LW R3, R0, (108)            -> min = +inf
                ORI R4, R0, 0               -> i = 0
                LW R5, R0, (112)            -> array first element
                _____

LOOP :          BEQ R4, R1, DONE = (11)     -> if (i == size)
                LW R6, R5, (0)              -> R6 = arr[i]
                SLT R7, R2, R6             -> R7 = R2 < R6
                BEQ R0, R7, COND2 = (1)     -> if (array[i] > max)
                ADD R2, R6, R0             -> max = array[i]

COND2:          SLT R7, R6, R3             -> R7 = R6 < R3
                BEQ R7, R0, UPDATE = (1)    -> if (array[i] < min)
                ADD R3, R6, R0             -> min = array[i]

UPDATE:         ADDI R4, R4, 1             -> i++
                ADDI R5, R5, 4             -> next array element location += 4
                J      LOOP= (5)            -> goto LOOP
DONE
                { empty space}
                SW R2, R0, (156)           -> Mem[156] = max
                SW R3, R0, (160)           -> Mem[160] = min
```

Binary code in next page 👉

1. 10001100000000010000000001100100
2. 10001100000001000000000001101000
3. 10001100000001100000000001101100
4. 00110100000001000000000000000000
5. 10001100000001010000000001110000
6. 00010000100000010000000000001011
7. 10001100101001100000000000000000
8. 00000000010001100011100000101010
9. 00010000000001110000000000000001
10. 00000000000001100001000000100000
11. 00000000110001100111000000101010
12. 00010000000001110000000000000001
13. 00000000000001100001100000100000
14. 00100001000010000000000000000001
15. 00100001010010100000000000000100
16. 00001000000000000000000000000101
17.
18. 10101100000001000000000010011100
19. 10101100000001100000000010100000
20.
21.
22.
23.
24.
25.
26. 00000000000000000000000000001010
27. 10000000000000000000000000000000
28. 01111111111111111111111111111111
29. 00000000000000000000000001110100
30. 00000000000000000000000101000001
31. 11111111111111111111111111110100
32. 00000000000000000000000010000110
33. 00000000000000000000000000000000
34. 11111111110101111111000001110011
35. 00000000000100110010110101001101
36. 00000000000000000000000000000011
37. 00000000000000000000000000000000
38. 00000000000000000000000000001001
39. 11111111111111111111111111101001