Experiment Number -04

PEE-452/PCS-405 Microprocessors Lab
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OBJECT

To find the smallest number in an array of data using 8085 microprocessor.

APPRATUS REQUIRED

8085 Microprocessor trainer kit, Keyboard

THEORY

The Intel 8085 is an 8-bit microprocessor produced by Intel and introduced in 1976. It is a software-binary compatible with the more-famous Intel 8080 with only two minor instructions added to support its added interrupt and serial input/output features. However, it requires less support circuitry, allowing simpler and less expensive microcomputer systems to be built.

In Enter Program into Trainer Kit

1. Press 'RESET' key
2. Sub (key processor represent address field)
3. Enter the address (16 bit) and digit in hex
4. Press 'NEXT' key
5. Enter the data
6. Again press "NEXT"
7. Again after taking the program, are use HLT instruction its Hex code
8. Press "NEXT"

How to executive program

1. Press "RESET"
2. Press "GO"
3. Enter the address location in which line program was executed
4. Press "Execute" key

PROGRAM

Memory Address	*Machine Codes*	*Labels*	*Mnemonics*	*Operands*	*Comments*
2000	21		LXI	H,2500H	
2001	00				
2002	25				
2003	46		MOV	B, M	
2004	23		INX	H	
2005	7E		MOV	A, M	
2006	05		DCR	B	
2007	23	LOOP	INX	H	
2008	BE		CMP	M	
2009	DA		JC	AHEAD	
200A	0D				
200B	20				
200C	7E		MOV	A, M	
200D	05	AHEAD	DCR	B	
200E	C2		JNZ	LOOP	
200F	07				
2010	20				
2011	32		STA	2600H	
2012	00				
2013	26				
2014	76		HLT		

OBSERVAVTION

Before Execution	**After Execution**
Data: Address Data 2500-05 (Array Size) 2501- 2502- 2503- 2504- 2505-	Result: Address Data 2600-

RESULT

Successfully find the smallest number in an array of data.

PRECAUTIONS

1. Connections should be proper and tight.
2. Switch “ON” the power after completing the circuit.
3. Do not touch the line terminals.