Micro code EEPROM layout

		Instruction code					Step	р	FI	ags	L	eft	Dii	rect			To inv	erter	s		Мі	ddle	Di	irect			To inv	erters	6		Ri	ght									
									CF	ZF			CE	RI	Ral	RO	II	J	СО	AI			s	HLT	AO	AIO	ВІ	во	OI	FI			INC	DCR	SUP	SDN	SA	so	ΧI	хо	
	A8	A 7	A6	A5 .	A4	А3	A2	A1	A0	A9	A10	A11	A12	D7	D6	Y 5	Y4	Y 3	Y2	Y1	Y0	A11	A12	D7	D6	Y 5	Y4	Y 3	Y2	Y1	Y0	A11	A12	D7	D6	D 5	D4	D3	Y2	D1	Y0
NOP Is also the	0	0	0	0	0	0	0	0	0	Х	Х	0	0			1				1		0	1									1	0								
start of each instruction							0	0	1	Х	Х	0	0	1			1	1				0	1									1	0								
LDA	0	0	0	0	0	1	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
							0	1	1	Х	Х	0	0	1		1	1					0	1									1	0								
							1	0	0	Х	Х	0	0				1				1	0	1									1	0								
ADD	0	0	0	0	1	0	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
Add what is							0	1	1	X	Х	0	0	1		1	1					0	1									1	0								
at memory address to A							1	0	0	Х	Х	0	0				1					0	1					1				1	0								
							1	0	1	Х	Х	0	0								1	0	1				1				1	1	0								
SUB	0	0	0	0	1	1	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
Subtract what							0	1	1	Х	Х	0	0	1		1	1					0	1									1	0								
is at memory address from							1	0	0	Х	Х	0	0				1					0	1					1				1	0								
Α							1	0	1	Х	Х	0	0								1	0	1	1			1				1	1	0								
STA	0	0	0	1	0	0	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
							0	1	1	Х	Х	0	0	1		1	1					0	1									1	0								
							1	0	0	Х	Х	0	0		1							0	1			1						1	0								
LDI Load direct	0	0	0	1	0	1	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
into A							0	1	1	Х	Х	0	0	1			1				1	0	1									1	0								
JMP	0	0	0	1	1	0	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
Jump to address							0	1	1	Х	Х	0	0				1		1			0	1									1	0								
JC	0	0	0	1	1	1	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
Jump to address if							0	1	1	0	Х	0	0	1								0	1									1	0								
carry out							0	1	1	1	Х	0	0				1		1			0	1									1	0								
JZ Jump to	0	0	1	0	0	0	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
address if							0	1	1	Х	0	0	0	1								0	1									1	0								
zero							0	1	1	Х	1	0	0				1		1			0	1									1	0								
LDB	0	0	1	0	0	1	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
							0	1	1	Х	Х	0	0	1		1	1					0	1									1	0								
							1	0	0	Х	Х	0	0				1					0	1					1				1	0								
STB	0	0	1	0	1	0	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
							0	1	1	Х	Х	0	0	1		1	1					0	1									1	0								

Final Property Decomposition		Instruction code						Step		Step Flags		ags	gs Left		Dir	Direct			To inv	erters	;		Мі	ddle	Di	rect			To inv	erter	s		R	ight								
LIDIS LIDI											CF	ZF	1		CE	RI	Ral	RO	II	J	со	Al	l		s	HLT	AO	AIO	ВІ	во	OI	FI			INC	DCR	SUP	SDN	SA	so	ΧI	хо
Library Libr		A8	Α7	A6	A 5	A4	А3	A2	A1	A0	A9	A10	A1	A12	D7	D6	Y 5	Y4	Y 3	Y2	Y1	Y0	A11	A12	D7	D6	Y5	Y4	Y 3	Y2	Y1	Y0	A11	A12	D7	D6	D5	D4	D3	Y2	D1	Y0
Counting in the counting in								1	0	0	Х	Х	0	0		1							0	1						1			1	0								
MADE BOLT		0	0	1	0	1	1	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
OUTS								0	1	1	X	Х	0	0	1			1					0	1					1				1	0								
OUTX O 0 1 1 1 1 1 1 0 0 0 1 0 0 0 1 1 1 1 1	OUT	0	0	1	1	0	0	0	1	0	Х	Х	0	0									0	1			1				1		1	0								
HIT 0 0 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	OUTB	0	0	1	1	0	1	0	1	0	Х	Х	0	0									0	1						1	1		1	0								
LDX	OUTX	0	0	1	1	1	0	0	1	0	Х	Х	0	0									0	1							1		1	0								1
STX O 1 0 1 0 1 0 1 0 1 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0	HLT	0	0	1	1	1	1	0	1	0	Х	Х	0	0									0	1		1							1	0								
STX O 1 0 0 0 0 1 1 0 0 0 X X X 0 0 0 0 1 1 0 0 X X X 0 0 0 0	LDX	0	1	0	0	0	0	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
STX 0 1 0 0 1 0 0 1 0 0 1 1 0 0 0 1 1 0 0 X X X 0 0 1 1 1 1								0	1	1	Х	Х	0	0	1		1	1					0	1									1	0								
Color Colo								1	0	0	Х	Х	0	0				1					0	1									1	0							1	
LDIX	STX	0	1	0	0	0	1	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
DIX								0	1	1	Х	Х	0	0	1		1	1					0	1									1	0								
PSH 0 1 0 1 0 0 1 1 1 X X X 0 0 1 1 0 0 1 0 1									-	-	_	_	0			1							0	1									1	_								1
PSH 0 1 0 0 1 1 0 0 1 1 0 X X 0 0 0 1 1 0 X X 0 0 0 1 1 0 X X 0 0 0 1 1 0 X X 0 0 0 1 1 0 X 0 0 1 1 0 X 0 0 0 1 1 0 X 0 0 0 1 1 0 X 0 0 0 1 1 0 X 0 0 0 1 1 0 X 0 0 0 1 1 0 X 0 0 0 0	LDIX	0	1	0	0	1	0	0	1	0	Х	Х	0	0			1				1		0	1									1	0								
POP 0 1 0 1 0 1 0 1 0 1 0 0 0 1 1 0 0 0 0								0	1	1	Х	Х	0	0	1			1					0	1									1	0							1	
POP	PSH	0	1	0	0	1	1	0	1	0	Х	Х	0	0			1						0	1									1	0					1	1		
PSHB 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0									-		_	_	+			1								1			1						1	_			1		1			
PSHB 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	POP	0	1	0	1	0	0				-		-																				1					1				
PSHB 0 1 0 1 0 1 0 1 0 1 0 X X X 0 0 0 1 1 0 0 1 0 X X X 0 0 0 1 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0										-			+				1																1							1		
POPB 0 1 0 1 1 X X X 0 0 0 1 1 0 X X X 0 0 0 0									-	_	_	_	+					1				1											-	_								
POPB 0 1 0 1 1 0 0 1 0 X X 0 0 0 1 0 X X 0 0 0 1 0 1	PSHB	0	1	0	1	0	1				-		+				1						-							<u>.</u>			1							1		
Definition of the control of the con	DODD		_						-			_	+			1														1			_	+			1		1			
JSR 0 1 0 1 0 1 1 0 0 X X 0 0 0 1 1 0 1 0 X X 0 0 0 1 1 0 X X 0 0 0 1 1 0 1 0	POPB	0	1	U	1	1	U						-				_																1					1				
JSR 0 1 0 1 0 1 1 0 X X X 0 0 1 1 0 X X X 0 0 0 1 1 0 X X X 0 0 0 1 1 0 1 0									-				+				'	1											1				1	_						'		
RTS 0 1 1 X X 0 0 0 1 1 0 0 0 1 0 X X 0 0 0 1 1 0 0 1 0 1	ICD		-1	0	1	1	1		-		_	+	+-				1	<u>'</u>											'				-	_					-	1		
RTS 0 1 1 0 0 X X 0 0 0 1 1 0 0 1 0 1 0 1 0	Jon	U	'	U	'	'							+			1	'				1												1				1			'		
RTS 0 1 1 0 0 0 0 0 1 1 X X 0 0 0 1 1 1 0 0 1 0 1																'	1																				'		'			
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0 1 1 X X 0 0 1 1 0 1 1 0 1 1 1	RTS	0	1	1	0	0	0		+		_	+	+-										_										-	_				1				
	=	Ĭ	Ĺ							-			+				1																1						1	1		
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1 0 1 X X 0 0 1 0 1 0 1								1		1			0	0	1								0										1-	0								

	Instruction code				truction code			Step)	Fla	igs Le		eft	Di	rect	rect To inve						Mi	ddle	Di	rect			To inv	erters	•		Ri	ight								
										CF	ZF			CE	RI	Ral	RO	II	J	СО	AI	1		s	HLT	AO	AIO	ВІ	во	OI	FI			INC	DCR	SUP	SDN	SA	so	ΧI	хо
	A8	Α7	A6	A5	A4	А3	A2	A1	A0	A9	A10	A11	A12	D7	D6	Y 5	Y4	Y 3	Y2	Y1	Y0	A11	A12	D7	D6	Y 5	Y4	Y 3	Y2	Y1	Y0	A11	A12	D7	D6	D5	D4	D3	Y2	D1	Y0
INCX	0	1	1	0	0	1	0	1	0	Х	Х	0	0									0	1									1	0	1							
							0	1	1	х	Х	0	0									0	1								1	1	0								
DECX	0	1	1	0	1	0	0	1	0	Х	Х	0	0									0	1									1	0		1						
							0	1	1	Х	Х	0	0									0	1								1	1	0								
										Х	Х	0	0									0	1									1	0								
										х	Х	0	0									0	1									1	0								
										Х	Х	0	0									0	1									1	0								