Model-T Brain Board

TITLE: MiniPCv10

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IC6 7805
VI VO
GND
+5V
C20 C4 100 uF .1 uF
C21 C5 100 uF .1 uF

RST1
RESET
XTAL2
XTAL1
16 Mhz X1
15 pF C1
15 pF C2
PE

R20 10K R21 10K
PE
SW1G$2
JP12
470 R14
D15
SW1G$1
JP1
6-Pos Female Header

L1 10 uH
+5V
C6 .1 uF JP11 C8 .1 uF
C7 .1 uF
32768 KHz X2
PE

IC1 ATMEGA128

AREF 62
AVCC 64
AGND 63
VCC 52 / 21
GND 22 / 53
PG3(TOSC2) 18
PG4(TOSC1) 19
PG2(ALE) 43
PG1(RD) 34
PG0(WR) 33
PEN 1
ALE
RD
WR

(AD7)PA7 44 A7
(AD6)PA6 45 A6
(AD5)PA5 46 A5
(AD4)PA4 47 A4
(AD3)PA3 48 A3
(AD2)PA2 49 A2
(AD1)PA1 50 A1
(AD0)PA0 51 A0

(OC2/OC1C)PB7 17
(OC1B)PB6 16
(OC1A)PB5 15
(OC0)PB4 14
(MISO)PB3 13
(MOSI)PB2 12
(SCK)PB1 11
(SS)PB0 10

(A15)PC7 42 A15
(A14)PC6 41 A14
(A13)PC5 40 A13
(A12)PC4 39 A12
(A11)PC3 38 A11
(A10)PC2 37 A10
(A9)PC1 36 A9
(A8)PC0 35 A8

(T2)PD7 32 D7
(T1)PD6 31 D6
(XCK1)PD5 30 D5
(IC1)PD4 29 D4
(TXD1/INT3)PD3 28 D3
(RXD1/INT2)PD2 27 D2
(SDA/INT1)PD1 26 D1
(SCL/INT0)PD0 25 D0

PF7(ADC7/TDI) 54
PF6(ADC6/TDO) 55
PF5(ADC5/TMS) 56
PF4(ADC4/TCK) 57
PF3(ADC3) 58
PF2(ADC2) 59
PF1(ADC1) 60
PF0(ADC0) 61

(IC3/INT7)PE7 9
(T3/INT6)PE6 8
(OC3C/INT5)PE5 7
(OC3B/INT4)PE4 6
(OC3A/AIN1)PE3 5
(XCK0/AIN0)PE2 4
(TXD/PDO)PE1 3
(RXD/PDI)PE0 2

CP (LCD)
DS2 (LCD)
BUS1:A[0..7]
+5V

IC3 74HC573
1D 2 19 1Q
2D 3 18 2Q
3D 4 17 3Q
4D 5 16 4Q
5D 6 15 5Q
6D 7 14 6Q
7D 8 13 7Q
8D 9 12 8Q
VCC GND
LE 11
OE 1

ALE
BUS3:B[0..7]
R19 10K
JP13
RD
WR

IC2 CY62256
A0 ... A14
D0 ... D7
CE\
OE\
WE\
GND VSS
PE

R12 470 +5V
D1
L1
RST2

E (LCD)
TX1
RX1
BUS2:A[8..15]
BUS4:D[0..7]
PE3 (SPKR)

JP20
JP10 10-Pin Box Header
+5V
Bus3:B[0..7]

JP4 10-Pos Female Header
JP3 10-Pos Female Header
JP2 10-Pos Female Header
VSS GND
+5V

L3
L4
BUS6:F[0..7]
BUS5:E[0..7]

R16 470 +5V
R15 470
R18 470 +5V
R17 470

JP9 12-Pos Female Header
JP8 12-Pos Female Header
JP7 10-Pos Female Header
JP6 10-Pos Female Header
JP5 10-Pos Female Header
VSS GND
+5V PE

D2 D0 D1 D3

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Hitachi HI 2X16 LCD

IC5 — 74HC164

E (LCD)
DS2 (LCD)
CP (LCD)

Bus3:B[0..7]

JP19

IC4G$2 — 74HC02

D0 D1 D2 D3

SW3 SW4 SW5 SW6
SPST Momentary

R27 R28 R29 R30
C10 C11 C12 C13
R5 R6 R7 R8 470

SPK1
1N4148 D8
Q3 NPN
R11 470 R10
PE3 (SPKR)
JP14

SW2 — SPST Momentary
R31 10K
74HC02
R32 10K
IC4G$4
Q1 2N7002
RST2
RST1
L1

R53 20K
JP17
L3

R54 20K
JP18
L4

R50 33
JP16 RX1
C3 .1 uF
IC8 PNA4612M00YB
VCC VO GND
P$3 P$1 P$2

IC7 LTC6900
C9 .1 uF
R51 23K
VCC GND VREF OUT DIV
R33 10K
JP15
TX1
IC4G$3 — 74HC02
Q2 2N7002
D7 R13 470
D2 R9 470

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