Attention, si un tirage est posé, il intervient dans le temps de réponse lorsque le périphérique est à haute impédance

Filtrages :

Tau = 10ns = 10 Ohm x 1nF
Tau = 100ns = 100 Ohm x 1nF
Tau = 1µs = 1 kOhm x 1nF
Tau = 10µs = 10 kOhm x 1nF
Tau = 100µs = 100 kOhm x 1nF
Tau = 1 ms = 100 kOhm x 10nF
Tau = 10 ms = 100 kOhm x 100nF
Tau = 100 ms = 100 kOhm x 1 µF

IT :
Tau = 10µs

Mesures analogiques : Tau = 1ms = 100k x 10nF
Capteur de distance : Tau = 10ms = 100k x 100nF
Si CPLD : Tau = 100ns = 100 Ohm x 1nF

IT :
Tau = 10µs

Codeurs :
Tau = 10µs

RD0 peut servir d'entrée filtrée, de sortie standard, ou de sortie collecteur ouvert

Antirebond boutons : Tau = 10ms

UART : Tau = 1µs = 10 kOhm x 100pF
Fc = 1MHz

dsPIC30F6010A

Fond de Panier

RD0

CAN
H L

SCL
I2C SDA

RE0 RE1 »A1n0
RE2 »PwM2
RE3 »PwM3
RE4 »PwM4
RE5 »PwM5
RE7 »PwM7

SPI

SDO2
SDI2
SS2

AN#/RB#

Carte

INT4
INT3

Nirgal

ROBOT ESEO
2012

DsPIC
30F
6010A

7805

BT4

RD7

RA15
RA14

RG2
RG3

U2RX

BT3    BT2    BT1

RESET

ICD

RD6    RD5    RD4

Qz_10MHz          UART

ERROR
USER
USER
UART
CAN
RUN

RD13 RD12 RD11 RD10 RD9  RD8

Carte
Nirgal
ROBOT ESEO
2012

CAN

SCL
I2C SDA

DsPIC
30F
6010A

7805

BT4

BT3 BT2 BT1

RESET

UART

ERROR  USER  USER  UART  CAN  RUN

AN/RB

LCD

ø 6,58

80,05

31,24

10,35

3,49

3,62

61,09

dsPIC

MCP2551

10u
10n
1u
100n

60,13
80,02
31,24
3,49
3,62
0,32
Ø 3,28

| Designator | Description | Comment | Footprint | Quantity |
|---|---|---|---|---|
| B1 | | ALIM | BORNIER2 | 1 |
| BT1, BT2, BT3, BT4 SW1 | Switch tactil 6mm x 6mm Vertical | SW_Pushbutton_6x mm_Vertical | Switch 6x6 Vertical | 5 |
| Can2, Can3, Can8, Can9, Can10, Can1 Can12, Can13, Can14, Can15, Cbt1 Cbt2, Cbt3, Cbt4, Cdcan2, Cdpic1, Cdpic2, Cdpic3, Cdpic4, Cmclr, Cout2, Cvref1 | Capacitor | 100nF | C0805_N | 22 |
| Cdcan1 | Capacitor | 1uF | C1206_N | 1 |
| Cin, Cout | Capacitor | 10uF | C1206_N | 2 |
| Cin2, Cvref2 | Capacitor | 10nF | C0805_N | 2 |
| Cint1, Cint2, Cint3, Cint4, CqeA, CqeB, Crd0 | Capacitor | 1nF | C0805_N | 7 |
| Cq1, Cq2 | Capacitor | 22pF | C0805_N | 2 |
| Cu1rx, Cu2rx | Capacitor | 100pF | C0805_N | 2 |
| D1, D2, D3, D4, D5, D6 | Typical LED | LED | LED_3mm | 6 |
| J1 | | Fond de Panier | HE10/40_FACTO | 1 |
| J3 | | ICD | RJ11_6/6 | 1 |
| J6 | | UART | RJ11_6/6 | 1 |
| Q | Crystal Oscillator | QU | QUARTZ_DROIT_BP | 1 |
| Qrd0 | MOSFET N-CH | | SOT23 | 1 |
| Ran2, Ran3, Ran8, Ran9, Ran10, Ran1 Ran12, Ran13, Ran14, Ran15, Rbt1 Rbt2, Rbt3, Rbt4, | | | | |

| | | | | |
|---|---|---|---|---|
| Ran9, Ran10, Ran1<br>Ran12, Ran13,<br>Ran14, Ran15, Rbt1<br>Rbt2, Rbt3, Rbt4,<br>Rpbt1, Rpbt2, Rpbt3<br>Rpbt4 | Resistor | 100k | R1206_N | 18 |
| Rint1, Rint2, Rmclr,<br>RqeA, RqeB, Rsu1r,<br>Rtan2, Rtan3, Rtan8<br>Rtan9, Rtan10,<br>Rtan11, Rtan12,<br>Rtan13, Rtan14,<br>Rtan15, Rtint1,<br>Rtint2, Rtint3, Rtint4<br>RtqeA, RtqeB, Ru1r<br>Ru1tx, Ru2rx, Ru2tx<br>Rvref+ | Resistor | 10k | R1206_N | 27 |
| Rint3, Rint4, Rrd0,<br>Rsu1tx, Rsu2tx | Resistor | 100 | R1206_N | 5 |
| Rled1, Rled2, Rled3<br>Rled4, Rled5, Rled6 | Resistor | 1K | R1206_N | 6 |
| Rrd0_o | Resistor | 0 | R1206_N | 1 |
| RsMclr | Resistor | 47 | R1206_N | 1 |
| Rtscl, Rtsda | Resistor | 2.2k | R1206_N | 2 |
| Rvref- | Resistor | 10 | R1206_N | 1 |
| Ucan | High Speed Can<br>Transceiver | MCP2551 | SOIC150-8_N | 1 |
| Upic | High-Performance,<br>16-bit Digital Signal<br>Controllers | dsPIC30F6010A | TQFP80_N | 1 |
| Ureg | Three-Terminal<br>Positive Voltage<br>Regulator | MC7805BDTG | 369A-13 | 1 |
| Vis1, Vis2 | Vis M3 X 6mm_TOR | Pad_M3 | M3x6mm | 2 |