1   2   3   4   5   6

A

F1
0ZCJ0075AF2E
FB1
BLM18PG221SH1D
PWR_FLAG
+5V

Conn_USB
J1
4
3   PD+
2   PD−
1   5V_IN

D6
BZT52−B5V6J
GND

GND

SW6
SW_RST
GND

+3V3

C3
0.1uF
GND

R1
10k

+5V

31 UVCC
4 VCC
32 AVCC

24 PC1/RESET

PB0 14
PB1 15   SDA
PB2 16   SCL
PB3 17
PB4 18
PB5 19   MT
PB6 20
PB7 21

SCL R10 4.7k
SDA R11 4.7k
+3V3

Sensor Connector
GND
MT
SDA
SCL
J2
1
2
3
4
5
6
+3V3

Attention! This
pinout is mirrored
in respect to the
trackball sensor
for mechanical
alignment!

+5V
U2
TLV75533PDBV
1 IN   OUT 5
3 EN
GND 2
C5
0.1uF
GND
+3V3

U3
USBLC6−2SC6
+5V
5

PD− 6   4 PD+
UD− 1   3 UD+
2
GND

C1
18pF
C2
18pF
GND   GND

Y1
Crystal_GND24
4   2
3
M

R8 22
R9 22
UD+
UD−

1 XTAL1
2 PC0/XTAL2

29 D+
30 D−

D+
D−

27 UCAP
C4
1uF
GND

PD0 6
PD1 7
PD2 8
PD3 9
PD4 10
PD5 11
PD6 12
HWB/PD7 13

PC2 5
PC4 26
PC5 25
PC6 23
PC7 22

28 UGND
3 GND
GND

U1
ATmega32U2−AU

+3V3
R2 10k
SW7
SW_HWB
1
2
GND

SW1
Choc
SW2
Choc
SW3
Choc
SW4
Choc
SW5
Choc
GND

MK5
Mounting_Hole
MK6
Mounting_Hole
MK7
Mounting_Hole
MK8
Mounting_Hole
GND

MK9
Mounting_Hole
MK10
Mounting_Hole
MK11
Mounting_Hole
MK12
Mounting_Hole

MK13
LOGO
MK1
BADGE

+3V3
D5
D4 LED_Small
D3 LED_Small
D2 LED_Small
D1 LED_Small
LED_Small

R6 R7
475 475
475 475 475
R3 R4 R5

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Engineer: Lukas F. Hartmann
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Title: MNT Reform 2 Trackball
Size: A4   Date: 2020−09−08   Rev: 2.0R−1
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