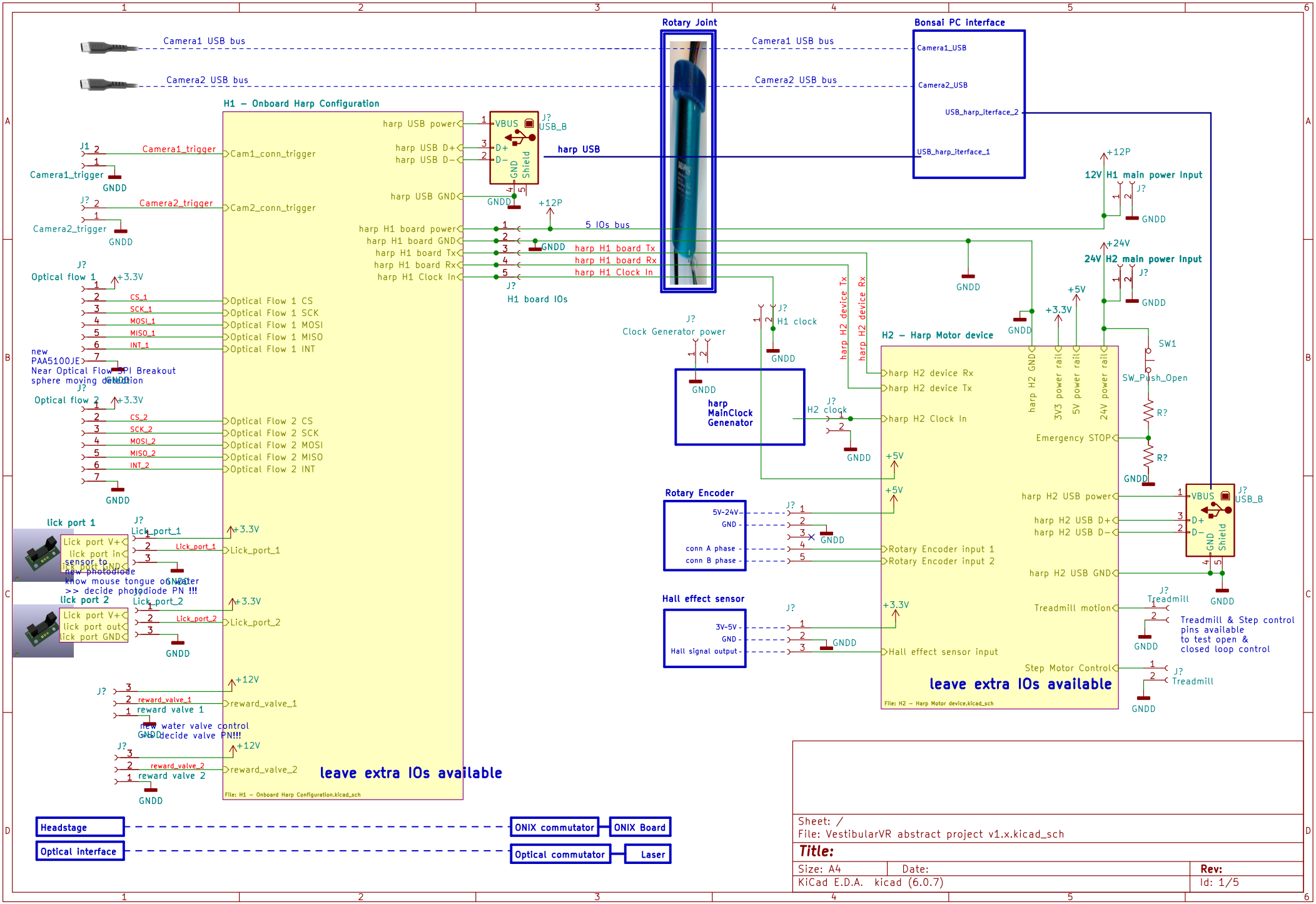
Rotary Joint
Bonsai PC interface
Camera1 USB bus
Camera2 USB bus
Camera1_USB
Camera2_USB
USB_harp_Iterface_2
USB_harp_Iterface_1
H1 – Onboard Harp Configuration
harp USB power
harp USB D+
harp USB D–
harp USB GND
harp USB
VBUS
D+
D–
GND
Shield
J? USB_B
Camera1_trigger
Camera2_trigger
Cam1_conn_trigger
Cam2_conn_trigger
harp H1 board power
harp H1 board GND
harp H1 board Tx
harp H1 board Rx
harp H1 Clock In
5 IOs bus
H1 board IOs
+12P
GNDD
12V H1 main power Input
24V H2 main power Input
+24V
+5V
+3.3V
Optical flow 1
Optical flow 2
CS_1
SCK_1
MOSI_1
MISO_1
INT_1
CS_2
SCK_2
MOSI_2
MISO_2
INT_2
Optical Flow 1 CS
Optical Flow 1 SCK
Optical Flow 1 MOSI
Optical Flow 1 MISO
Optical Flow 1 INT
Optical Flow 2 CS
Optical Flow 2 SCK
Optical Flow 2 MOSI
Optical Flow 2 MISO
Optical Flow 2 INT
new PAA5100JE Near Optical Flow SPI Breakout sphere moving detection
lick port 1
lick port 2
Lick port V+
lick port in
lick port GND
lick port out
Lick_port_1
Lick_port_2
new photodiode sensor to know mouse tongue or water
>> decide photodiode PN !!!
reward_valve_1
reward_valve_2
reward valve 1
reward valve 2
new water valve control
>> decide valve PN!!!
leave extra IOs available
File: H1 – Onboard Harp Configuration.kicad_sch
Clock Generator power
H1 clock
harp MainClock Genenator
H2 clock
harp H2 device Tx
harp H2 device Rx
H2 – Harp Motor device
harp H2 device Rx
harp H2 device Tx
harp H2 Clock In
Emergency STOP
harp H2 GND
3V3 power rail
5V power rail
24V power rail
SW1
SW_Push_Open
R?
harp H2 USB power
harp H2 USB D+
harp H2 USB D–
harp H2 USB GND
Treadmill motion
Step Motor Control
Rotary Encoder input 1
Rotary Encoder input 2
Hall effect sensor input
Rotary Encoder
5V-24V
GND
conn A phase
conn B phase
Hall effect sensor
3V-5V
Hall signal output
Treadmill
Treadmill & Step control pins available to test open & closed loop control
leave extra IOs available
File: H2 – Harp Motor device.kicad_sch
Headstage
Optical interface
ONIX commutator
ONIX Board
Optical commutator
Laser
Sheet: /
File: VestibularVR abstract project v1.x.kicad_sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. kicad (6.0.7)
Id: 1/5