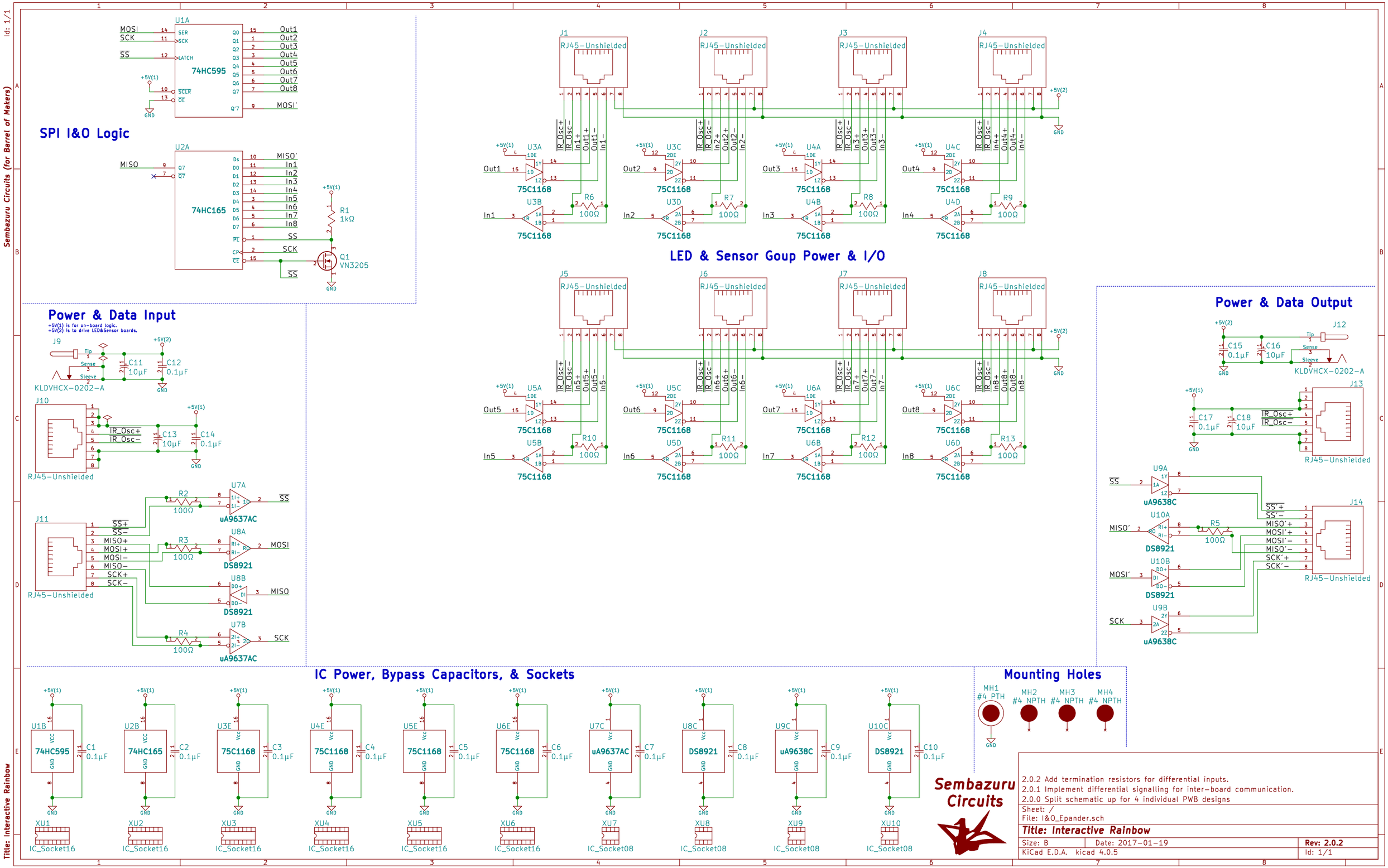
SPI I&O Logic
U1A
74HC595
MOSI
SCK
SS
Out1
Out2
Out3
Out4
Out5
Out6
Out7
Out8
MOSI'
U2A
74HC165
MISO
MISO'
In1
In2
In3
In4
In5
In6
In7
In8
R1
1kΩ
Q1
VN3205
LED & Sensor Goup Power & I/O
J1
J2
J3
J4
J5
J6
J7
J8
RJ45-Unshielded
75C1168
R6
R7
R8
R9
R10
R11
R12
R13
100Ω
Power & Data Input
+5V(1) is for on-board logic.
+5V(2) is to drive LED&Sensor boards.
J9
KLDVHCX-0202-A
C11
10µF
C12
0.1µF
J10
C13
C14
J11
U7A
U8A
U8B
U7B
uA9637AC
DS8921
Power & Data Output
J12
C15
C16
J13
C17
C18
J14
U9A
U10A
U10B
U9B
uA9638C
IC Power, Bypass Capacitors, & Sockets
U1B
U2B
U3E
U4E
U5E
U6E
U7C
U8C
U9C
U10C
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
XU1
XU2
XU3
XU4
XU5
XU6
XU7
XU8
XU9
XU10
IC_Socket16
IC_Socket08
Mounting Holes
MH1
#4 PTH
MH2
#4 NPTH
MH3
#4 NPTH
MH4
#4 NPTH
Sembazuru Circuits
2.0.2 Add termination resistors for differential inputs.
2.0.1 Implement differential signalling for inter-board communication.
2.0.0 Split schematic up for 4 individual PWB designs
Sheet: /
File: I&O_Epander.sch
Title: Interactive Rainbow
Size: B
Date: 2017-01-19
Rev: 2.0.2
KiCad E.D.A. kicad 4.0.5
Id: 1/1
Sembazuru Circuits (for Barrel of Makers)
Title: Interactive Rainbow