IO16

IO16

IO17

IO17

IO18

IO18

IO19

IO19

IO20

IO20

IO21

IO21

IO22

IO22

IO23

IO23

IO24

IO24

IO25

IO25

IO26

IO26

IO27

IO27

SPECIAL28

IO28

SPECIAL29

IO29

SPECIAL30

IO30

SPECIAL31

IO31

roboRIO Extension Male

I2C_SCL 32 — 32-IO14-I2C_SCL — 9-AI3 — AI3
I2C_SDA 34 — 34-IO15-I2C_SDA — 7-AI2 — AI2
— 5-AI1 — AI1
UART_TX 14 — 14-UART_TX — 3-AI0 — AI0
UART_RX 10 — 10-UART_RX

— 4-AO1 — AO1
SPI_CS 19 — 19-IO4-SPI_CS — 2-AO0 — AO0
SPI_CLK 21 — 21-IO5-SPI_CLK
SPI_MOSI 25 — 25-IO7-SPI_MOSI — 6-AGND
SPI_MISO 23 — 23-IO4-SPI_MISO

DIO13 26 — 26*-IO13-PWM9 — 8-DGND
DIO12 22 — 22*-IO12-PWM8 — 16-DGND
DIO11 18 — 18*-DIO11-PWM7 — 20-DGND
DIO10 31 — 31*-IO10-PWM6 — 24-DGND
DIO9 29 — 29*-IO9-PWM5 — 28-DGND
DIO8 27 — 27*-IO8-PWM4 — 30-DGND
DIO3 17 — 17*-DIO3-PWM3 — 12-DGND — GND
DIO2 15 — 15*-DIO2-PWM2
DIO1 13 — 13*-DIO1-PWM1 — P33-+3.3V — +3V3
DIO0 11 — 11*-DIO0-PWM0 — P1-5V — +5V

+3V3
C12
LEVELSHIFTERP
VDD
VCC
VSS
GND
IO4
LEVELSHIFTERP
IN   OU
ENABLE
+3V3
40109

IO5
LEVELSH
IN   OU
ENABLE
+3V3
40109

MCP3008
9 GND   CH7 8
10 /CS   CH6 7
IO12 11 DIN   CH5 6
IO13 12 DOUT   CH4 5
IO14 13 CLK   CH3 4
14 AGND   CH2 3
+5V 15 VREF   CH1 2
C10 16 VDD   CH0 1
ADC
C4
GND
+3V3

SHIFTERA
UT
4
GND
NEOPIXEL
1
2
3

GND
+3V3
3V3_LCD
1
2
3

GND
+5V
HIFTERB
UT
5
5V_LCD
1
2
3

GND
+3V3
ADC7
GND
+3V3
ADC6
GND
+3V3
ADC5
GND
+3V3
ADC4
GND
+5V
ADC3
GND
+5V
ADC2
GND
+5V
ADC1
GND
+5V
ADC0

+3V3

SPI_CS
IO0-SPI-CS
1
2
3

SPI_CLK
IO1-SPI-CLK
1
2
3

SPI_MOSI
IO2-SPI-MOSI
1
2
3

SPI_MISO
IO3-SPI-MISO
1
2
3

IO4
IO4
1
2
3

IO5
IO5

IO6
IO6

IO7
IO7

IO8
IO8

IO9
IO9

IO10
IO10

IO11
IO11

IO12
IO12

IO13
IO13

IO14
IO14

IO15
IO15

Change AAAALLL of these to 4 pins. Library is already there?

+5V
GND

1
2
3
AI0

1
2
3
AI1

1
2
3
AI2

1
2
3
AI3

1
2
3
AI4

1
2
3
AI5

+3V3
10k
R5
GREEN1
GND

POWER LED

GND

+5V

PWM0
DIO0
PWM1
DIO1
PWM2
DIO2
PWM3
DIO3
PWM4
DIO8
PWM5
DIO9
PWM6
DIO10
PWM7
DIO11
PWM8
DIO12
PWM9
DIO13

10k
R3
RE
IO18

10k
R2
YELLOW
IO17

R4
GREE
IO16
10k

12
32
VDD
+3V3
C2

roboRIO Interface Connector Female

I2C_SCL	32	32-IO14-I2C_SCL
I2C_SDA	34	34-IO15-I2C_SDA
UART_TX	14	14-UART_TX
UART_RX	10	10-UART_RX
SPI_CS	19	19-IO4-SPI_CS
SPI_CLK	21	21-IO5-SPI_CLK
SPI_MOSI	25	25-IO7-SPI_MOSI
SPI_MISO	23	23-IO4-SPI_MISO
DIO13	26	26*-DIO13-PWM9
DIO12	22	22*-DIO12-PWM8
DIO11	18	18*-DIO11-PWM7
DIO10	31	31*-DIO10-PWM6
DIO9	29	29*-DIO9-PWM5
DIO8	27	27*-DIO8-PWM4
DIO3	17	17*-DIO3-PWM3
DIO2	15	15*-DIO2-PWM2
DIO1	13	13*-DIO1-PWM1
DIO0	11	11*-DIO0-PWM0

9-AI3   9   AI3
7-AI2   7   AI2
5-AI1   5   AI1
3-AI0   3   AI0

4-AO1   4   AO1
2-AO0   2   AO0

6-AGND   6

8-DGND   8
16-DGND   16
20-DGND   20
24-DGND   24
28-DGND   28
30-DGND   30
12-DGND   12   GND

P33-+3.3V   33   +3V3
P1-5V   1   +5V

SPI_CS   1
SPI_CLK   2
SPI_MOSI   4
SPI_MISO   4
IO4   5
IO5   6
IO6   7
IO7   8
IO8   13
IO9   14
IO10   15
IO11   16
IO12   17
IO13   18
IO14   19
IO15   20

PR

GND   10
       11

P8

+3V3

EEPROM

SPECIAL28

SCL
WP
A2
A1
A0

VCC

SDA

GND

24LC256P

GND

10k
R1

SPECIAL29

RESET
SPECIAL31
SPECIAL30

GND

PropPLUG

VSS
RES
<TX
>RX

VSS
RES
<TX
>RX

$C1

P1*2   P3*2
         PS2   GND

PROPELLERP

9
29
VSS
GND

RESET

PROPELLER

P20   P31   40
P1   P30   39
P2   P29   38
P3   P28   37
P4   P27   36
P5   P26   35
P6   P25   34
P7   P24   33
P8   P23   28
P9   P22   27
P10   P21   26
P11   P20   25
P12   P19   24
P13   P18   23
P14   P17   22
P15   P16   21

BOE/   XI   30
RES/   XO   31

Q1
5MHz

X32A-D40

GND