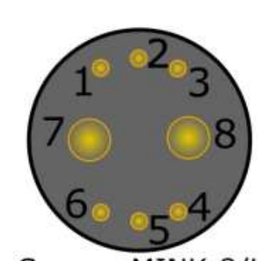


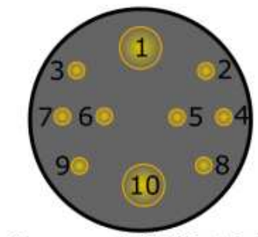
Seacon MINK-8/L

J15

EyeRIS Camera
Light Output

14 AWG	7	24V RETURN, BLK, 16 AWG	MBC-275_GND
14 AWG	8	+24V OUT, VIOLET, 16 AWG	LIGHTS_24V
22 AWG	1	RS-485 GND, BRN, 24 AWG	
22 AWG	2	RS-485 A, BLK/WHT, 24 AWG	
22 AWG	3	RS-485 B, BRN/WHT, 24 AWG	
22 AWG	4	CHASSIS GND, GRN	
22 AWG	5	SPARE 1, 24 AWG	
22 AWG	6	SPARE 2, 24 AWG	

MINK 8-FCRL



Seacon MINK-10/L

J18

ROV HV Interface
100Base-T

14 AWG	1	HV RETURN, BLK, 18 AWG
14 AWG	10	HV IN, RED/YEL, 18 AWG
20 AWG	2	Cat5 ORG/WHT
20 AWG	3	Cat5 ORG
20 AWG	4	Cat5 GRN/WHT
20 AWG	5	Cat5 GRN
20 AWG	6	Cat5 BLUE
20 AWG	7	Cat5 BLUE/WHT
20 AWG	8	Cat5 BRN/WHT
20 AWG	9	Cat5 BRN

MINK 10-FCRL

Molex 09-50-3031 / Molex 26-60-4030

J1-3 / J1-2 / J1-1

Neutral (DC-)
NC
Live (DC +)
110-240 AC
<= 390 VDC
Chassis GND

CHASSIS GND

MBC-275

Screw Term

MBC-41

U15

Ve+ / Ve+ / Ve- / Ve-

J2-1 MBC-41_24V System_24V
J2-2 MBC-41_GND System_GND
J2-3
J2-4

U14

Ve+ / Ve+ / Ve+ / Ve- / Ve- / Ve-

Splice 3(18 G) 1(18 G)

MBC-275_24V

MBC-275_GND

Splice 3(18 G) 1(18 G)

Pololu D36V28F12 U3

OUT / GND / GND / IN / EN

1 12V PWR
2 12V GND

Pololu D36V28F5 U4

OUT / GND / GND / IN / EN

Hacked USB cable
with Micro-B Connector

RasbperryPi3 U1

Ethernet[1..8]
USBPower[1..4]
/dev/ttyUSB0[1..4]
/dev/ttyUSB1[1..4]
/dev/ttyAMA0[1..4]

GPIO_2_SDA1 5.0VDC
GPIO_3_SCL1 5.0VDC
GPIO_4
GPIO_17
GPIO_27
GPIO_22
GND

1-4 Cable Splice

5V_SENSORS
GND
SDA 3
SCL 5

2 5V_SENSORS
4
7
11
13
17
9 GND

U2

VCC / IN4 / IN3 / IN2 / IN1 / GND

K4_NO / K4_COM / K4_NC
K3_NO / K3_COM / K3_NC
K2_NO / K2_COM / K2_NC
K1_NO / K1_COM / K1_NC

Camera_24V
MBC-41_24V

LIGHTS_24V
MBC-275_24V

JBTek-4-Channel-Relay

U16

Camerta_24V_Out
MBC-42_GND
PHT4_RX_CTRL

24V Input
GND

Hirose 4-pin

->10G_1530_80km[1..1]
<-10G_1550_80km[1..1]
<-10G_1570_80km[1..1]
<-10G_1590_40km[1..1]
<-10G_1610_40km[1..1]

CXP_A[1..2]
CXP_B[1..2]
CXP_C[1..2]
CXP_D[1..2]

PHT4-CM

CXP_A[1..2]
CXP_B[1..2]
CXP_C[1..2]
CXP_D[1..2]

Raytrix-R26 U17

U18

1550[1..1]
1570[1..1]
1590[1..1]
1610[1..1]

Line[1..16]

PHT4_TX_DATA

CWDM-MUX-FS-8-Channel

U7 FTDI-USB-485

USB[1..4]

GND
A+
B-

RS-485 GND, BRN, 24 AWG
RS-485 A, BLK/WHT, 24 AWG
RS-485 B, BRN/WHT, 24 AWG

U6 FTDI-USB-232

USB[1..4]

GND
RX
TX

12V GND
12V PWR
12V GND

U8

Vin (6-12V)
TX
RX
GND

Birger-Lens-Control

U5 PololuTicT825

USB[1..4]

Vin
GND
A1
A2
B1
B2

12V PWR
12V GND

U13

A+
A-
B+
B-

Micromo-Stepper-DM1220

Lancer AUX

PHT4_RX_CTRL

Lancer CWDM

PHT4_TX_DATA

LIGHTS_24V / LIGHTS_24V_OUT

U10 Adafruit-INA260

Screw Term

Vcc / GND / SCL / SDA / Alert / VBus / Vin+ / Vin-

Camera_24V / Camera_24V_Out

U9 Adafruit-INA260

Screw Term

Vcc / GND / SCL / SDA / Alert / VBus / Vin+ / Vin-

U11 Adafruit-BME280

Vin / 3Vo / GND / SCK / SDO / SDI / CS

U12 Adafruit-BME280

Vin / 3Vo / GND / SCK / SDO / SDI / CS

Monterey Bay Aquarium Research Institute			
7700 Sandholdt Road, Moss Landing, CA 95039			
Title: 04-ROV-Camera-Zoom-V2			Project: 800139
Engineer: Paul Roberts	Size: Custom	Document Number	Part Number: NA
Designer: Paul Roberts	Date: Friday, August 28, 2020	Project File: EyeRIS.sch	Rev: A
		Sheet 1 of 1	