AutoRace Mission Assembly Guide
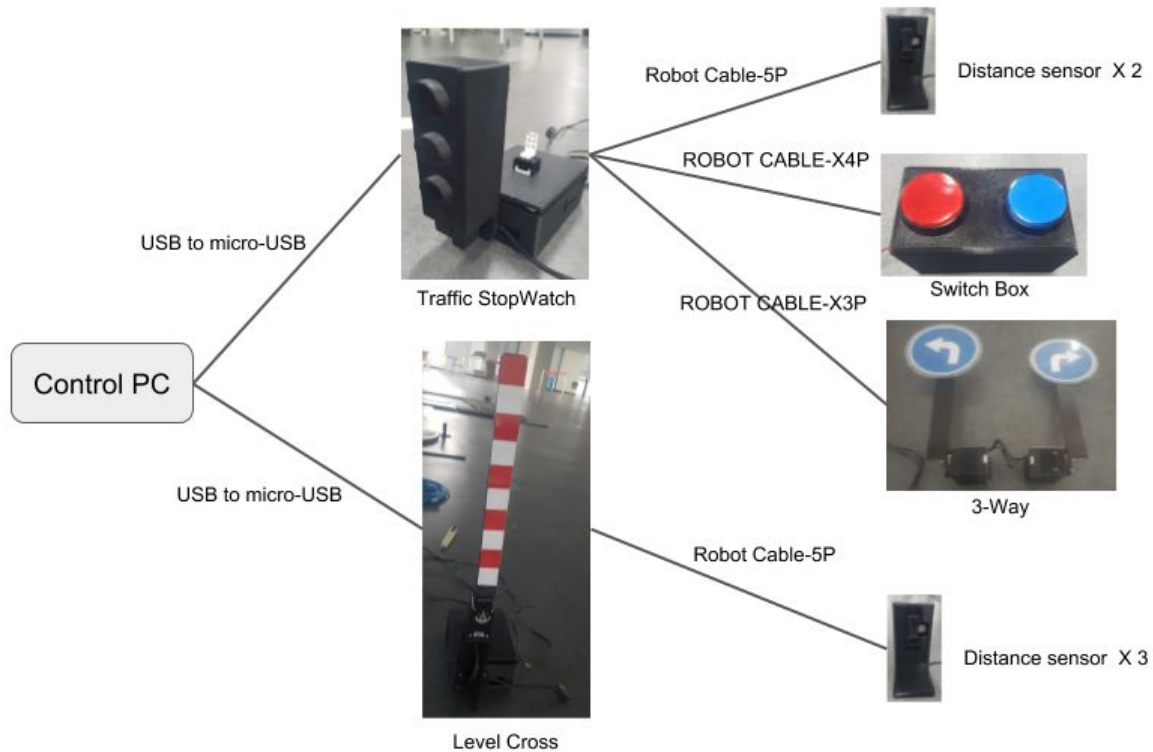

1. Traffic Stopwatch
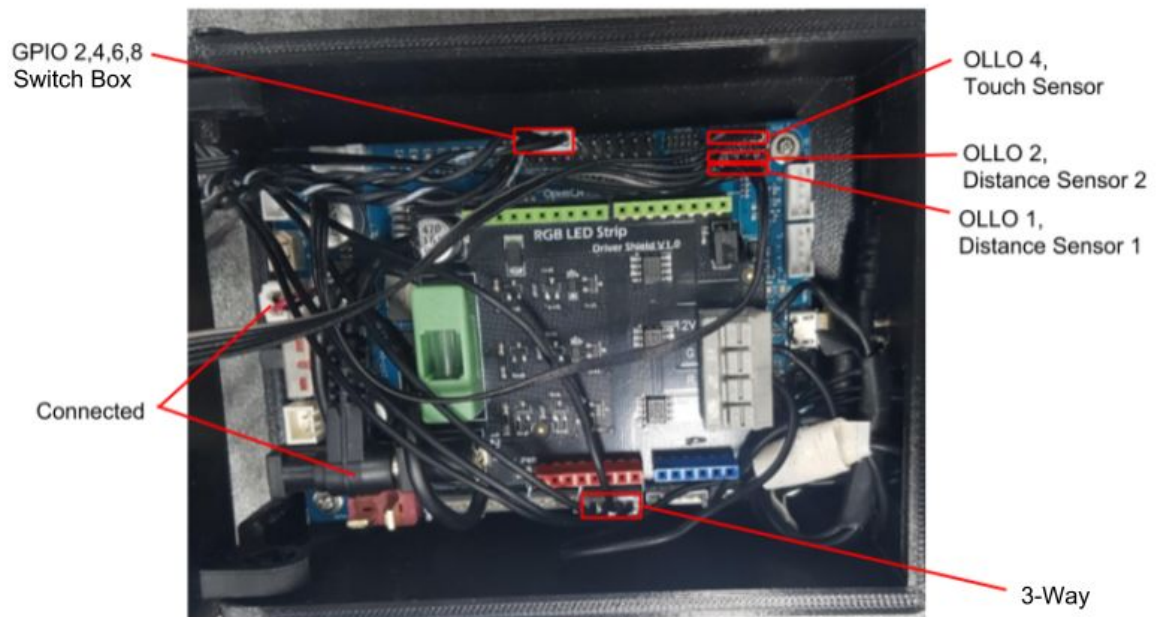
1) print OpenCR Box and cover. (2 x Rivet(RS-10))
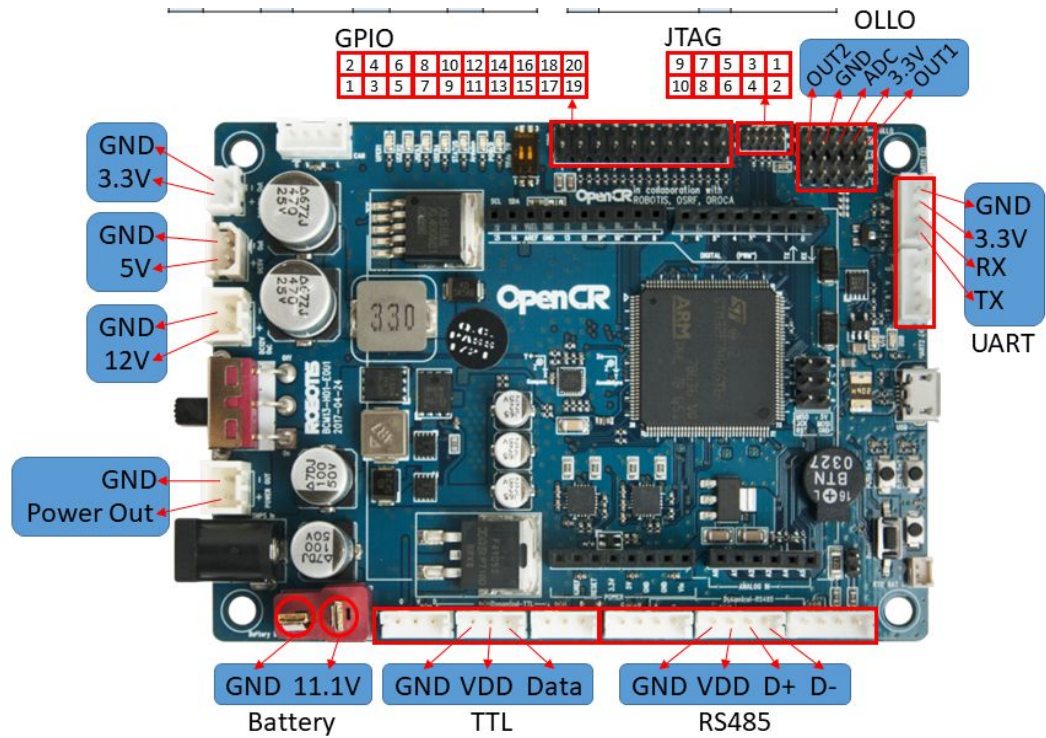
2) Assemble 4 TB3 PCB Support (4 x NUT_M2.5, 4 x PHS M2.5x8mm)
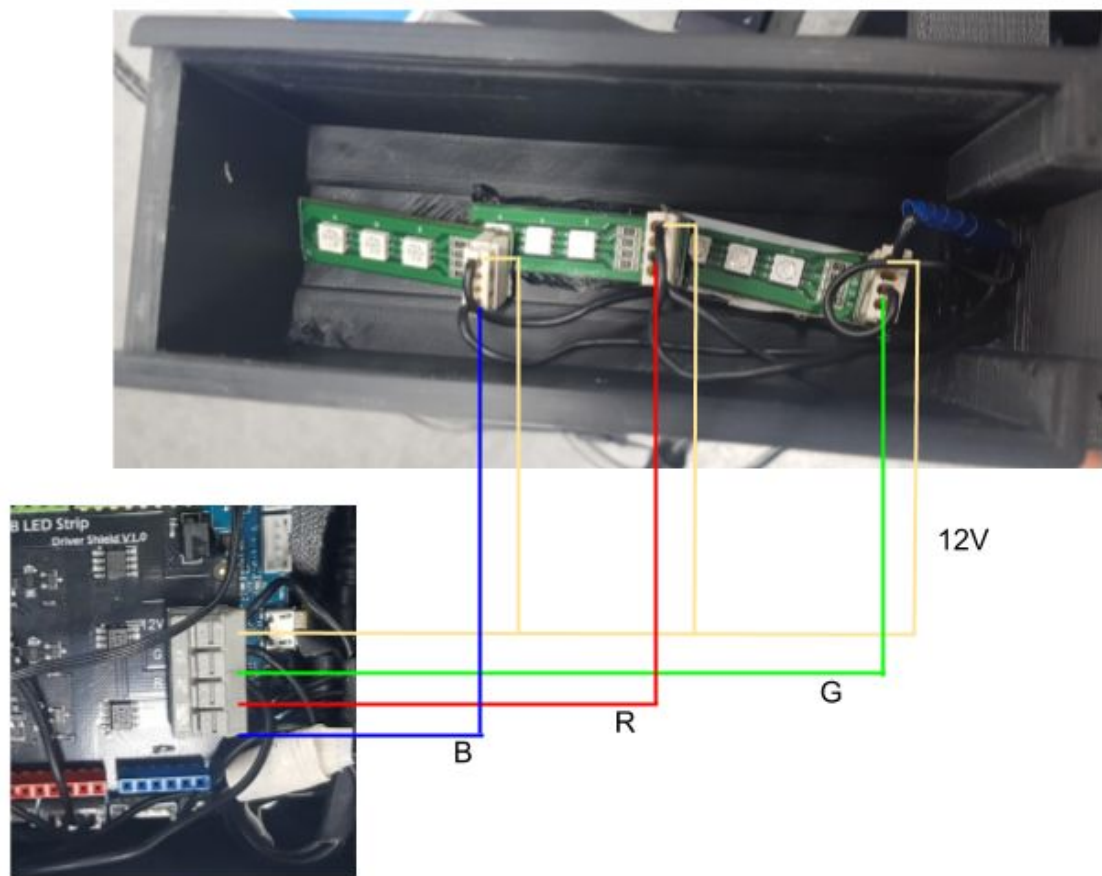

3) Assemble OpenCR (4 x Rivet-Mg(n))

4) Assemble RGB LED Strip Driver Shield

GPIO

2	4	6	8	10	12	14	16	18	20
1	3	5	7	9	11	13	15	17	19

JTAG

9	7	5	3	1
10	8	6	4	2

OLLO: OUT2 GND ADC 3.3V OUT1

GND
3.3V

GND
5V

GND
12V

GND
Power Out

GND 11.1V — Battery

GND VDD Data — TTL

GND VDD D+ D- — RS485

GND
3.3V
RX
TX
UART

GPIO 2,4,6,8
Switch Box

Connected

OLLO 4,
Touch Sensor

OLLO 2,
Distance Sensor 2

OLLO 1,
Distance Sensor 1

3-Way

5) Arange BIC20_B01_E001 PBA In Lamp

6) Attach touch sensor on OpenCR corver
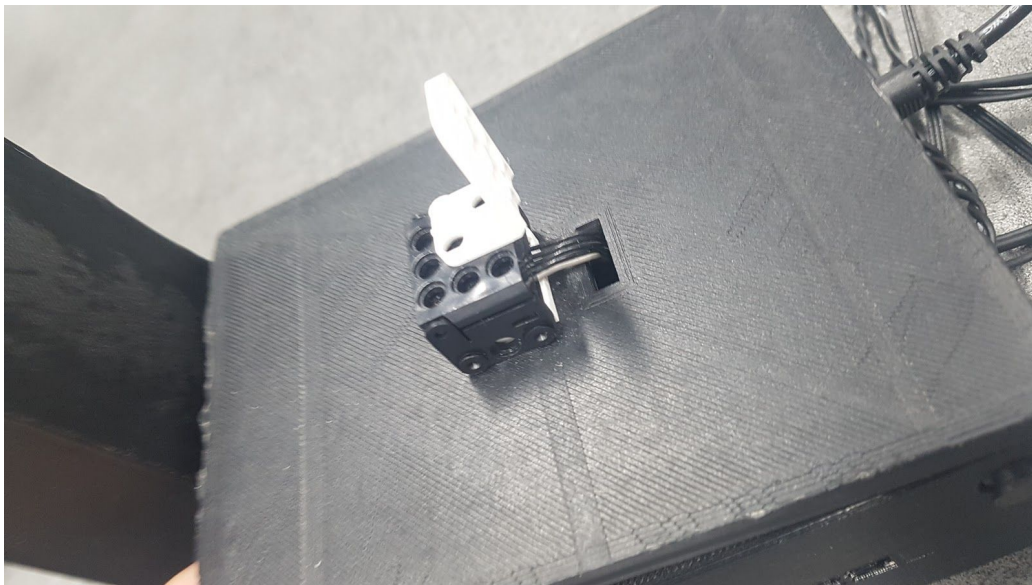
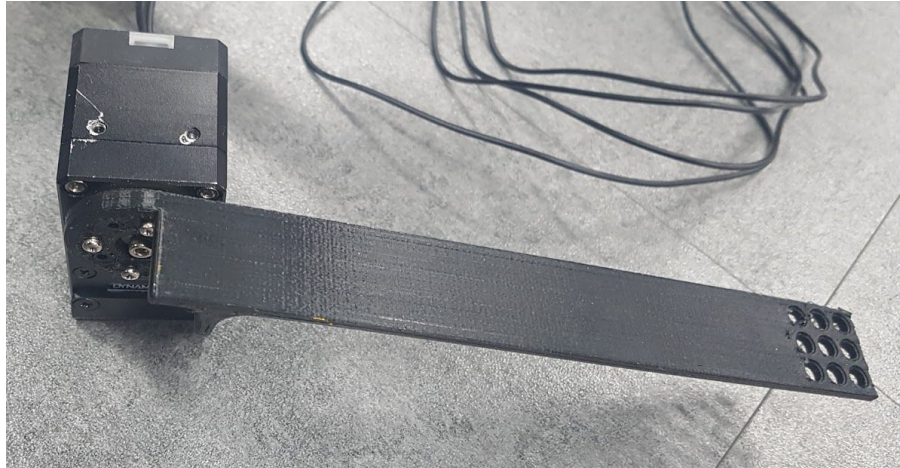7) Taping cellophane and plastic tape behind Traffic corver.
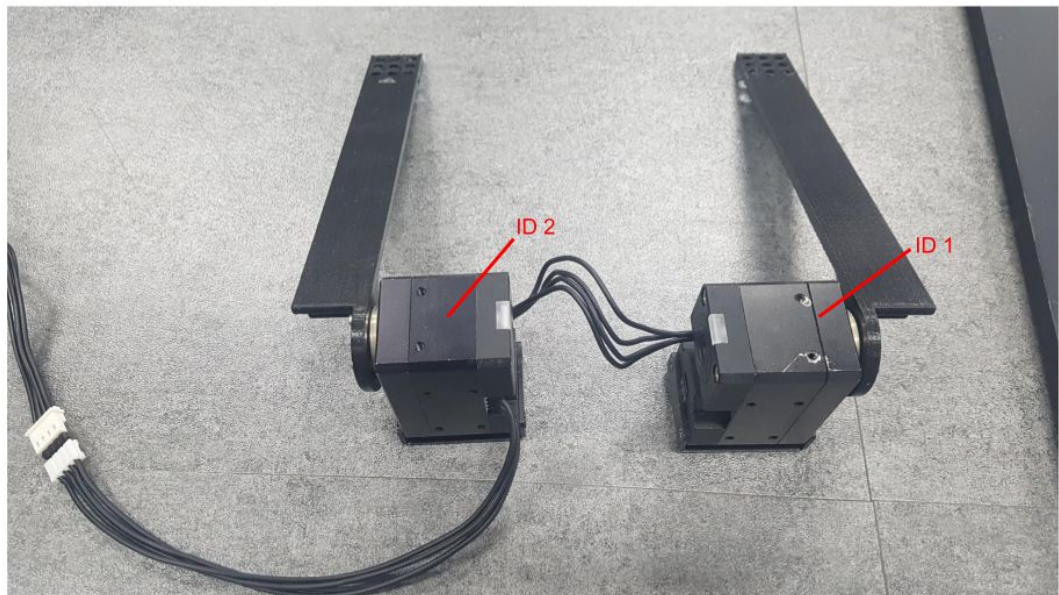

8) Assemle Lamp and OpenCR Box

2. 3-Way

    1)   Print and assemble Dynamixel and Sign frame X2. (PHS M2x4mm)

    2)   Connected Dynamixels and OpenCR. **Dynamixel's baud rate = 57600, ID = 1, 2**
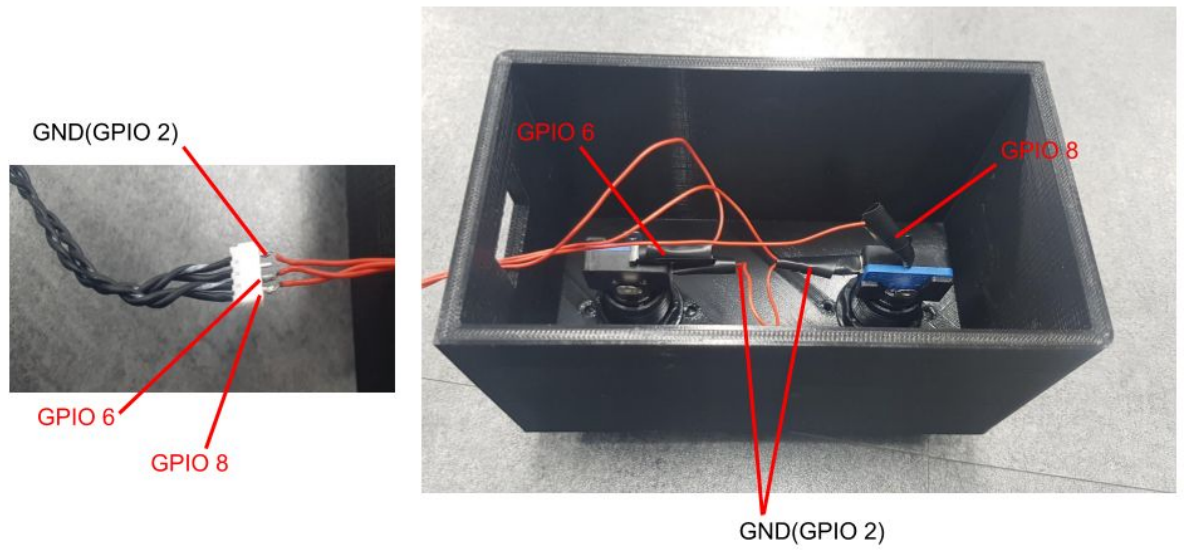

3. Switch Box

1)   Print and assemble switch box. (Button RED, BLUE, switch box)
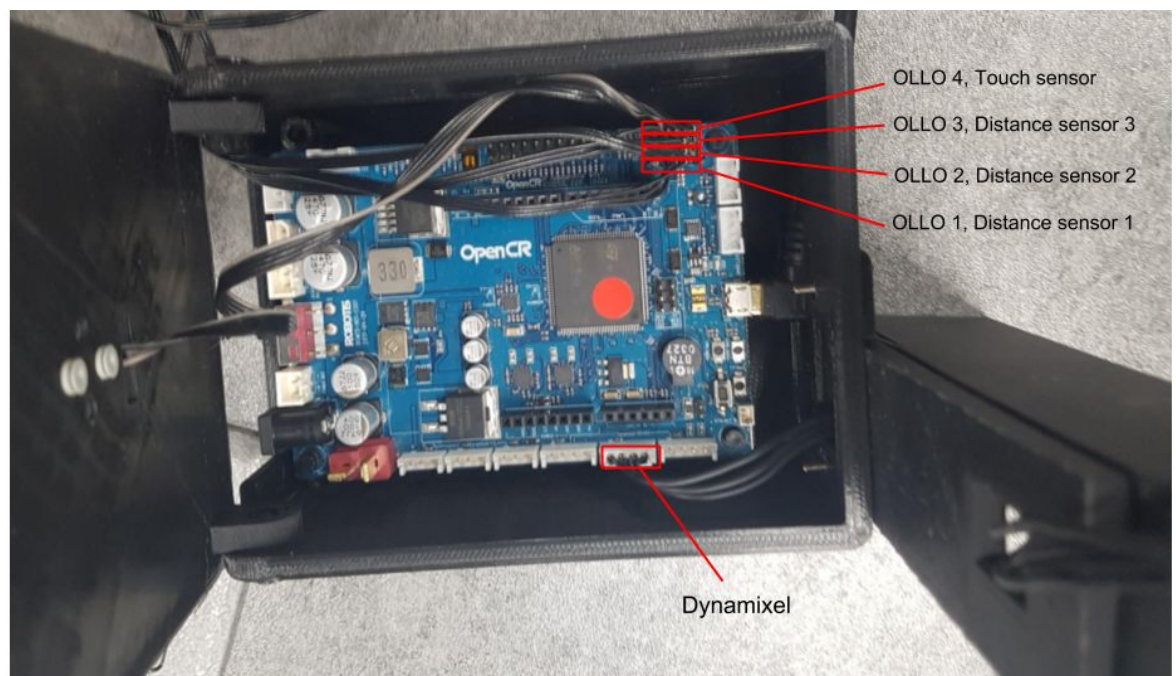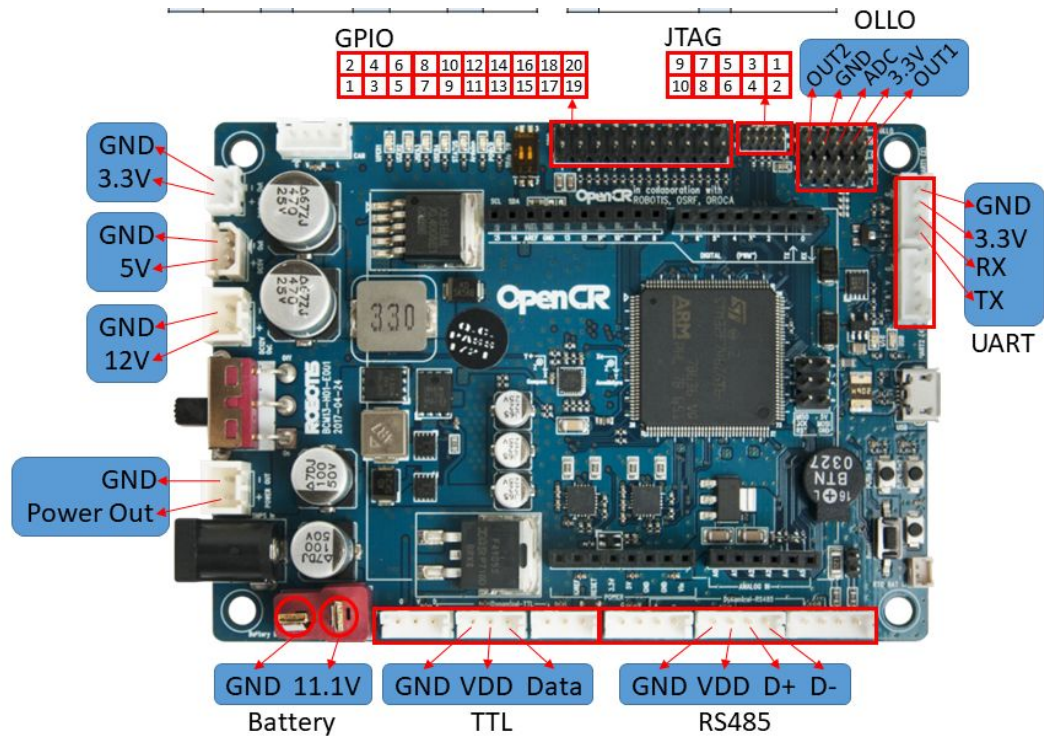
2) Connected wire for OpenCR(GPIO 2,4,6,8)

4. Level Crossing

1) Repeat Step. 1~3 of 1. Traffic stopwatch
2) Assemble 7 x FP04-F3, FR13-H101K and Dynamixel. (14 X PHS M2x6, 14 X PHS M2x6, 10 X PHS M2x4). **Dynamixel's baud rate = 57600, ID = 1**

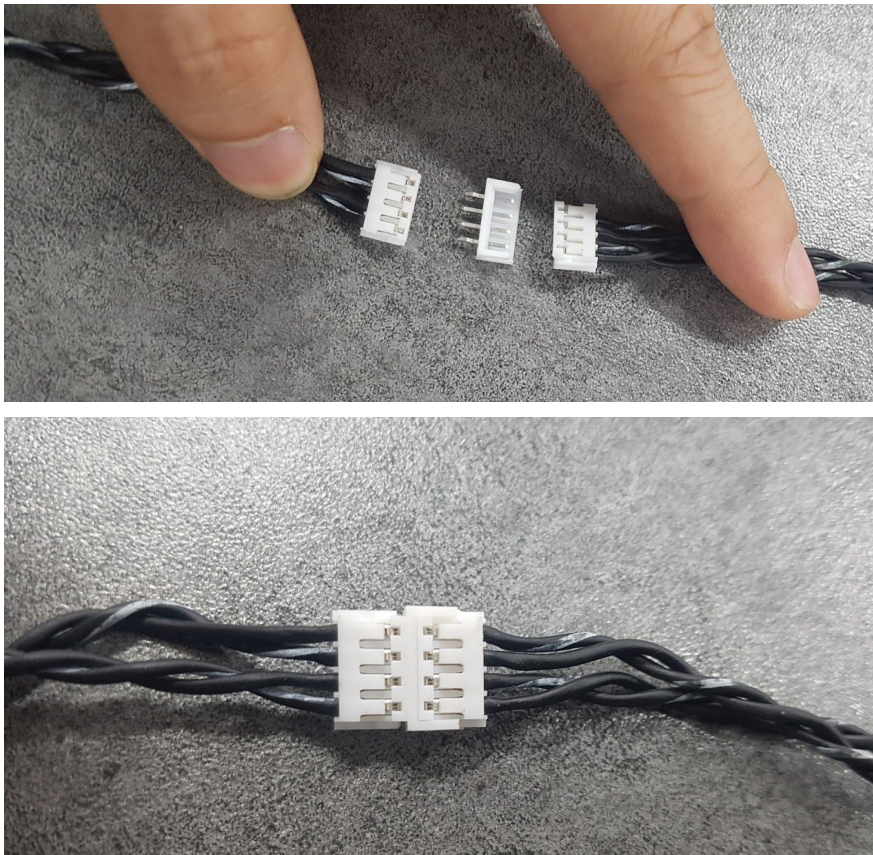3) Connected Sensors and Dynamixel with OpenCR

5. Distance Sensor

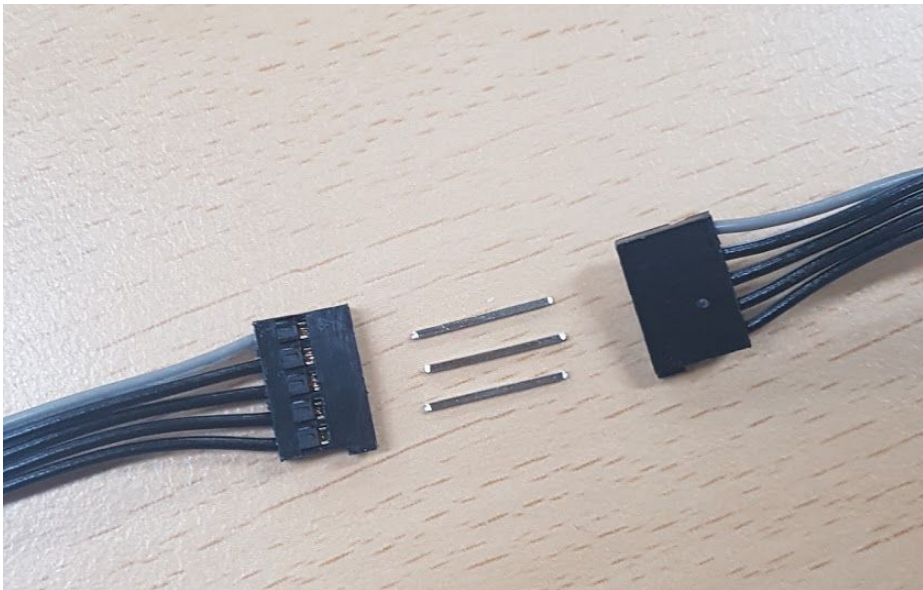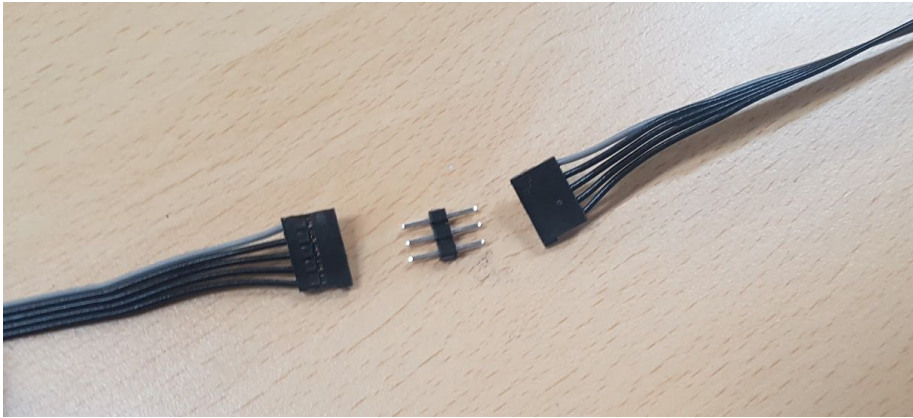1) print and assemble distance sensors and Sensor fixtures. (PHS M2.5x8mm, NUT_M2.5)

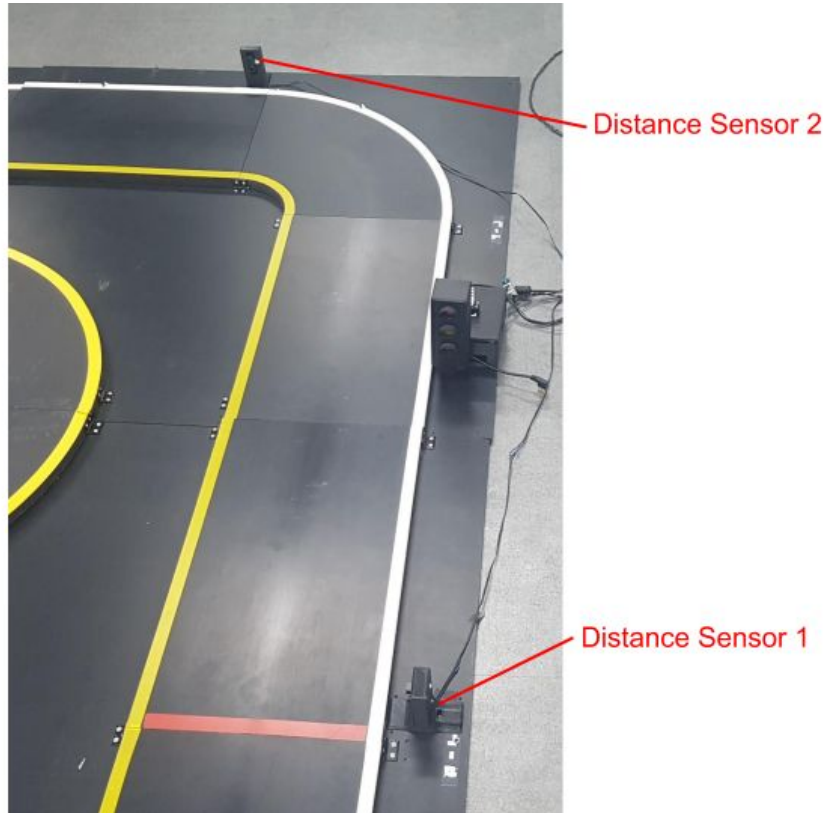# 6. Extend Cable

1) Dynamixel Cable

2) Distance sensor cable (2,3,4 pin)

7. Complete mission

1) Traffic Stopwatch

2) Level Crossing