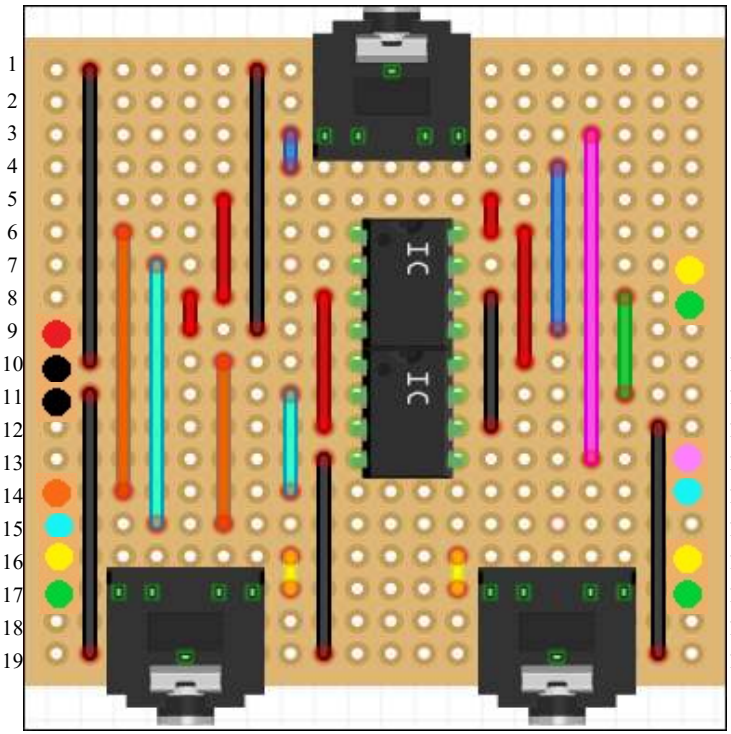
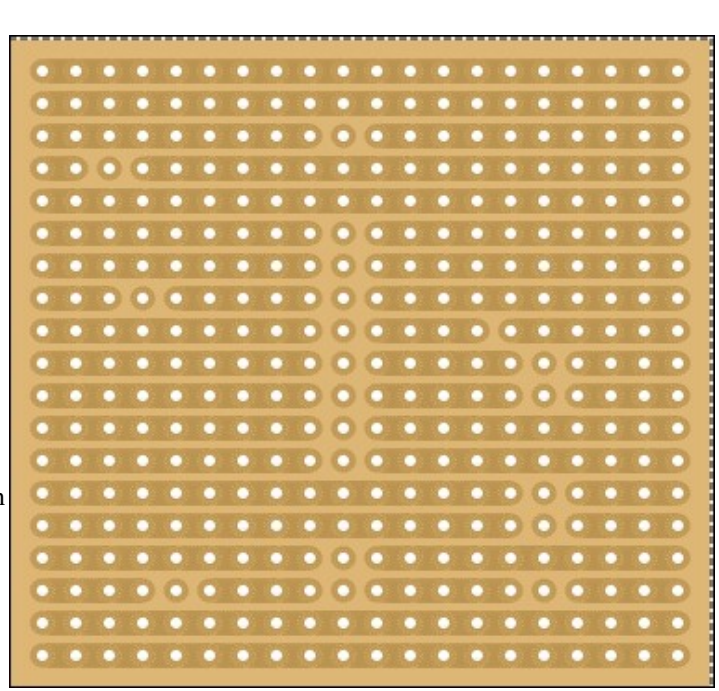
Adaptive RC Sailer Interface PCB
Arduino Shield (20 columns wide x 19 rows high)

Top View



	1	
	2	
	3	
	4	GND
	5	D13
	6	D12
Reset	7	D11 Sails CS
3.3 V	8	D10 Rudder CS
5 V	9	D9
GND	10	D8
GND	11	No Pin
Vin	12	D7
No Pin	13	D6
A0 Sails Inc	14	D5 Rudder Up/Dwn
A1 Sails Up/Dwn	15	D4 Rudder Inc
A2 Rudder Right	16	D3 Sails Out
A3 Rudder Left	17	D2 Sails In
A4	18	D1
A5	19	D0

Copper Strip Side with Trace Breaks



X9C103 Digital Potentiometer Sail & Rudder Pin Assignments

!INC = 1(Inc/Dec) Vcc = 8
U/!D = 2(Up/Dwn) !CS = 7(Chip Select)
Vh/Rh = 3 Vl/Vr = 6
GND = 4 Vw/Rw = 5
Note: Must keep !INC LOW while taking !CS HIGH
U/!D may be changed while !CS is LOW

Arduino Pin Numbers *(Not PCB #)*
Digital Pins D0 - D13 = Pin # 0 - 13
Analog Pins A0 - A5 = Pin # 14 - 19

X9C Digital Potentiometer #A	**Arduino**
X9C_A_Sails__ChipSelectPin7	= D11 (11)
X9C_A_Sails__UpDownPin2	= A1 (15)
X9C_A_Sails__IncDecPin1	= A0 (14)
SailsOutSwitchPin	= D3 (3) Ring
SailsInSwitchPin	= D2 (2) Tip

X9C #A Pin#5 = Sails Servo (Tip)

X9C Digital Potentiometer #B	**Arduino**
X9C_B_Rudder_ChipSelectPin7	= D10 (10)
X9C_B_Rudder_UpDownPin2	= D5 (5)
X9C_B_Rudder_IncDecPin1	= D4 (4)
RudderLeftSwitchPin	= A3 (17) Ring
RudderRightSwitchPin	= A2 (16) Tip

X9C #B Pin#5=Rudder Servo (Ring)

Surrogate Adaptive Switch Simulator

Sails In (Decrement) = Tip Sails Out (Increment) = Ring

X9C103 Datasheet available at https://www.renesas.com/cn/en/document/dst/x9c102-x9c103-x9c104-x9c503-datasheet