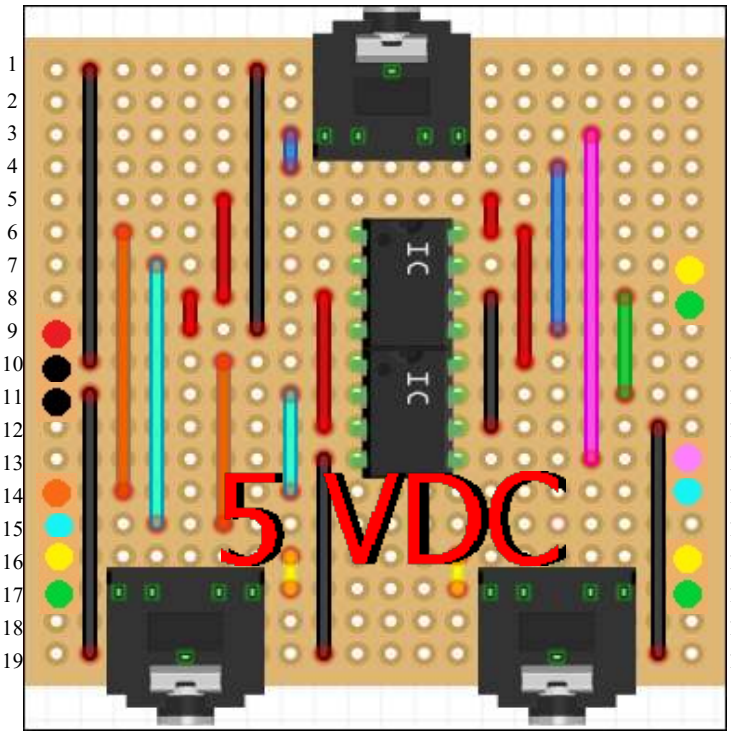
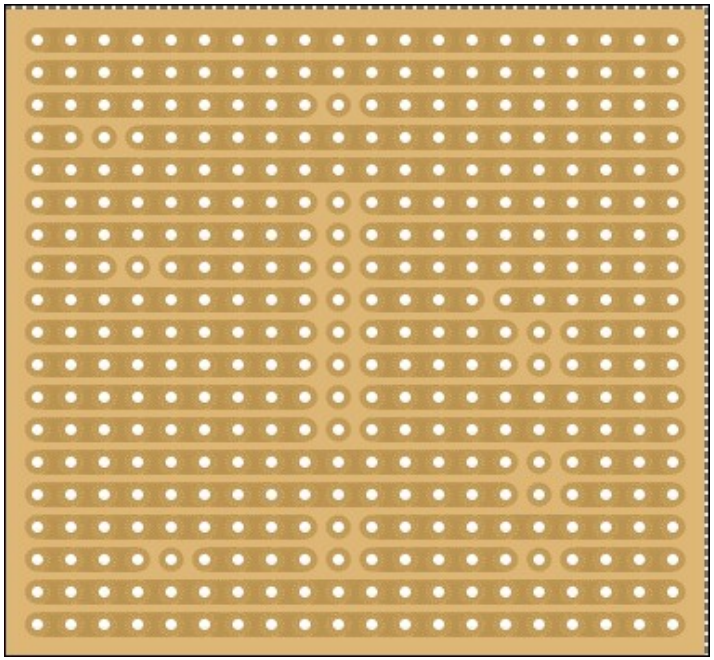
Adaptive RC Sailer Interface PCB **(5 VDC)**
Arduino Shield (20 columns wide x 19 rows high)

Top View



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 Digital Potentiometer #B	Arduino
X9C_A_Sails__ChipSelectPin7	= D11 (11)	X9C_B_Rudder_ChipSelectPin7	= D10 (10)
X9C_A_Sails__UpDownPin2	= A1 (15)	X9C_B_Rudder_UpDownPin2	= D5 (5)
X9C_A_Sails__IncDecPin1	= A0 (14)	X9C_B_Rudder_IncDecPin1	= D4 (4)
SailsOutSwitchPin	= D3 (3) Ring	RudderLeftSwitchPin	= A3 (17) Ring
SailsInSwitchPin	= D2 (2) Tip	RudderRightSwitchPin	= A2 (16) Tip
X9C #A Pin#5 = Sails Servo (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