# XL-Chaining MaxSonar Sensors, (AN Output)

Daisy Chaining with Constantly Looping

Pull the Pin 4 pin high on the first sensor for at least 20uS. Then the micro controller will have to return it's pin to a high impedance state so that the next time around the Pin 5 output from the last sensor will make it's way to the Pin 4 of the first sensor.

Wire Pin 1 to Logic Low

Wire to an AD input

1K

Repeat to add as many sensors as desired
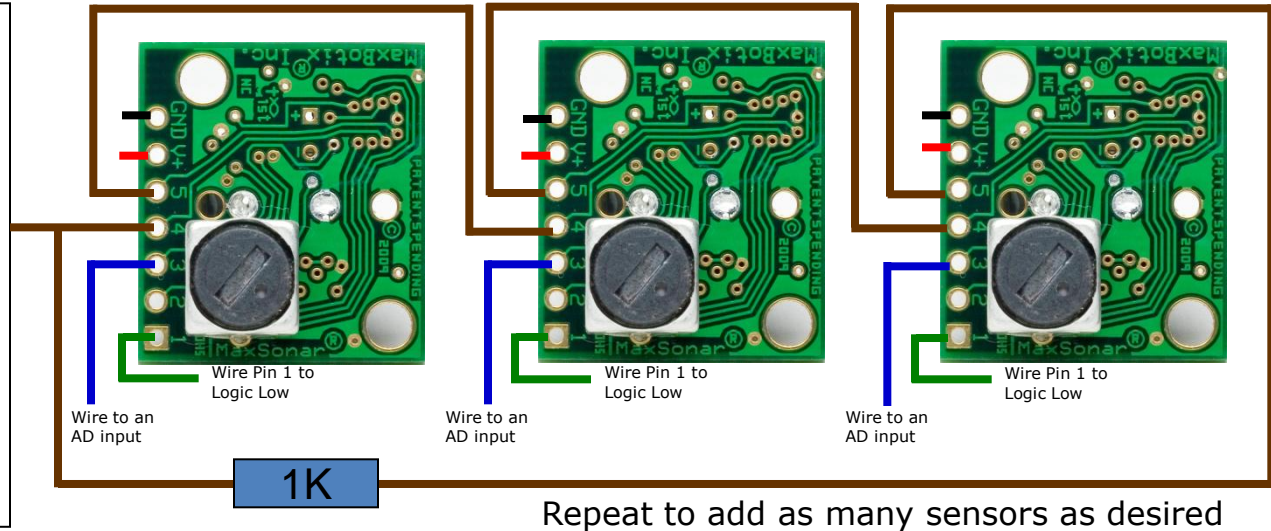
Daisy Chaining with Constantly Looping

This application note shows how to set up the sensors to keep constantly ranging, without interference, looping so that they always provide the latest range reading for each sensor.

First, wire as shown, remembering to add a 1K resistor between the last sensor's Pin 5 and the first sensor's Pin 4.

Second, 250mS or more (to allow the sensors time to boot-up) after power is applied to the sensors, you will have to start the chain running. To do this, pull the Pin 4 pin high on the first sensor for at least 20uS, and then return this pin to a high impedance state so that the next time around the Pin 5 output from the last sensor will make it's way to the Pin 4 of the first sensor. Hence, all of the sensors in the chain will continue to run in sequence. This "ring of sensors" will cycle around and around, constantly maintaining the most current range value on their respective analog voltages. If your controller cannot return to a high impedance state, when using three sensors, one can bring high Pin 4 on the first sensor, high for 20 uS, every 300mS(i.e. 100mS per sensor) and this will accomplish the same result as chaining.

Read the latest range reading (i.e. the analog value) at any time from any sensor. After pulling the Pin 4 pin low, the analog voltage pin 100mS, i.e. the sensor must complete a range cycle. In addition, the most recent range reading is always ready to be read on the analog voltage pin, so once you start the chain, and if you are using it in continuous mode, you can read the values at any time.