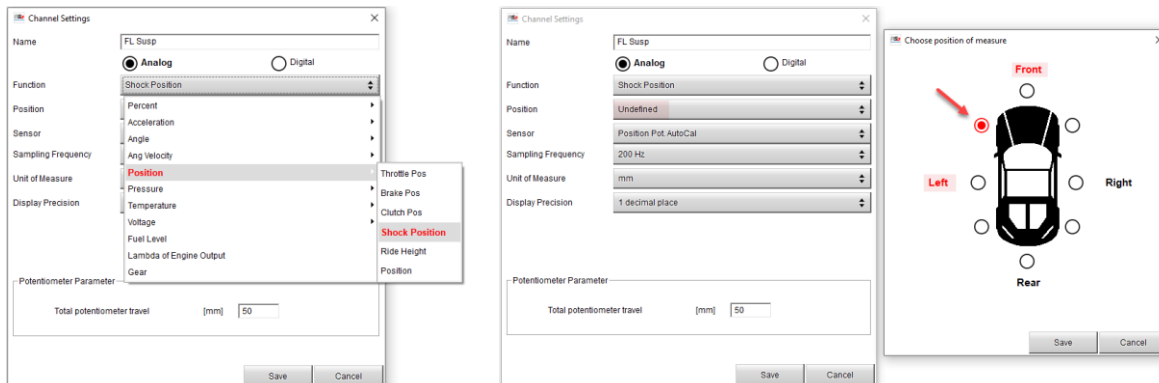


Setting Up and Calibrating a Suspension Position Sensor in Race Studio 3

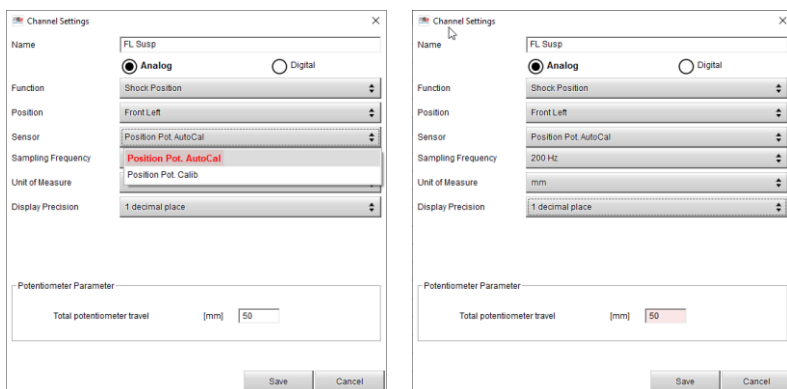
Select the Channel you have the sensor attached to and name the channel **FL Susp**, **Susp** etc.

Then click on the Function pulldown box. Select **Position** and then **Shock Position**.

Then click on the Position pulldown box. On the vehicle graphic, Select the **Position** (Front Left in this example)



Next click on the Sensor pulldown box. Select **Position Pot. AutoCal**



Set the Sampling Frequency. Many suggest **200 Hz**.

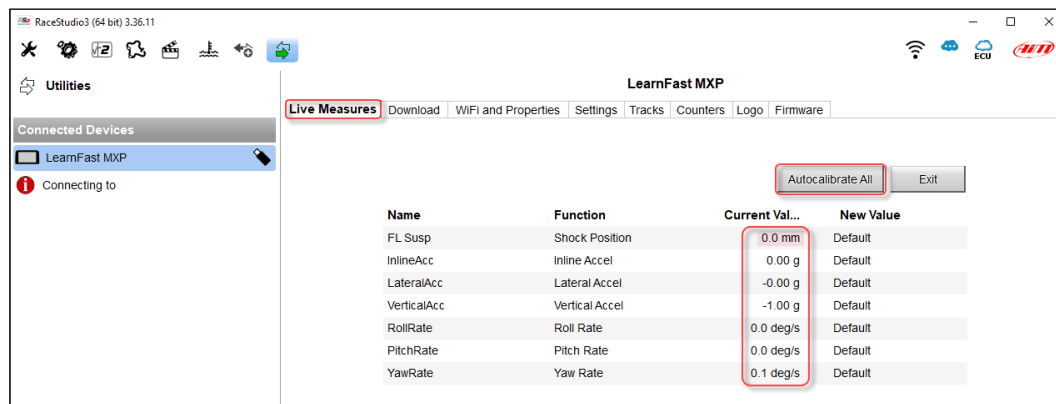
Choose your Unit of Measure, the choices are inches or millimeters and I selected **mm**.

Set the Display Precision, selected is **1 decimal place**.

Finally, set the Total Potentiometer Travel to the actual full length of travel of your installed potentiometer, this sensor was **50mm**. Then click on the **Save** button.

Transmit the configuration to the logger by clicking on the **Transmit** button.

After getting the Channel settings correct and transmitted to the logger for all of the Suspension position sensors and having the vehicle sitting at ride height, go to **Live Measures** and click on the  **Auto Calibrate** button and then **Autocalibrate All** and then **Exit**.



The **Autocalibrate All** function automatically calibrates all sensors in your system that do not require a further calibration process. These are the accelerometers, Gyros, and in this example the LF Suspension sensor. If you have 4 Suspension sensors, they will all be shown here and Autocalibrated and will show a value of zero at ride height. When the suspension compresses you will have positive values and when the suspension droops you will have negative values.

Then as a final check, while in the Live Measures function, push down on your vehicle and watch the Suspension value on the RS3 screen and check to make sure that the values match the amount you are compressing the Suspension. Here the Suspension is compressed and displaying **22.6mm**.

Here I have clicked on the **FL Susp** value in Live Measures and it is highlighted and displayed along the right edge of the screen, making it easier to view specific channels in the Live Measures function.

LearnFast MXP			
Live Measures Download WiFi and Properties Settings Tracks Counters Logo Firmware			
mV			
Master		FL Susp	
Throttle	0 %	YawRate	0.0 deg/s
InlineAcc	0.00 g	FL Susp	22.6 mm
LateralAcc	0.00 g	RPM	0 rpm
VerticalAcc	-1.00 g	LoggerTemp	103.1 F
Steering	-78 deg	Water Temp	69 F
RollRate	0.0 deg/s	External Voltage	11.9 V
PitchRate	-0.0 deg/s		
Calculated channels			
PreCalcGear	#	OverRev	0 #
OnTrack	0 #		
Lap channels			
Lap - Lap Number	0	Lap - Split Time	0.00.000
Lap - Run Number	0	Lap Time	0.00.000
Lap - Split Number	0		
GPS 09 - Serial 8701071			