

Tutorial 3: Ultrasonic Sensor

1. Setup: Set the Ultrasonic sensor in the Motor and Sensor Setup to Sonic . Be sure you place the name in the same port. See below for example. Ultra Sensor is set in Port 2.

Motors and Sensors Setup

Sensor Index	Name	Sensor Type	Sensor Mode
S1		No Sensor	Not Applicable
S2	Sonic	Ultrasonic (EV3)	Distance CM
S3		No Sensor	Not Applicable
S4		No Sensor	Not Applicable

2. Write the following program.
NOTE: the ultrasonic sensor works with default units of cm

```

1  #pragma config(Sensor, S2,      Sonic,      sensorEV3_Ultrasonic)
2  /**!!Code automatically generated by 'ROBOTC' configuration wizard  !!*/
3
4  task main()
5  {
6
7      while (true)
8      {
9          if (SensorValue [Sonic] >= 5)
10         {
11             motor (motorB) = 20;
12             motor (motorC) = 20;
13         }
14
15         else
16         {
17             motor (motorB) = 0;
18             motor (motorC) = 0;
19         }
20     }
21 }

```

While (true) loop is a way to run the program continuously without having a counter or end. In essence it is a forever loop

3. Upload and test the program