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1. Look over the online documentation for the sensor. How many registers are there in the sensor?

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2. What is the address for the registers that contain the acceleration and magnetic data?

   X-axis acceleration data: 28h, 29h

   Y-axis acceleration data: 2Ah, 2Bh

   Z-axis acceleration data: 2Ch, 2Dh

   X-axis magnetic field data: 03h, 04h

   Z-axis magnetic field data: 05h, 06h

   Y-axis magnetic field data: 07h, 08h

3. How many bits is the output data per channel (meaning X, Y and Z direction for either magnetic or acceleration data)?

   16

4. Figure 1 of the sensor's datasheet presents a block diagram of the entire system. How do you think capacitors can be used to sense acceleration information?

   Capacitors can be used in accelerometers to measure force in this way: if a moving mass alters the distance between two metal plates, measuring the change in their capacitance gives a measurement of the force that's acting.