The instrument will be used for determining the level of a substance inside a vessel of known size. The industry partner for this project is KAB Instruments whose primary product is the manufacturing of ultrasonic level sensors. Since radar based level sensors are gaining market share and becoming more affordable, it is our goal to design low cost and low power technology which can be incorporated into their product line.

Advantages of radar based level measurement systems include better accuracy, operation is unaffected by process temperature and pressure, low power and operating costs.

**POWER SUPPLY**

Loop power supplies are also referred to as converted to a proportional current which is then maintained in the loop where a receiver at a remote end can convert the proportional to the wiring which can then be processed and displayed by a computer.

Sending a current over long distances produces voltage losses proportional to the wiring’s length. However, these voltage losses do not reduce the 4-20 mA current as long as the transmitter and loop supply can compensate for these drops.

The microprocessor is responsible for controlling the instrument. It is responsible for taking in and coordinating time interval measurement. The microprocessor is responsible for controlling the instrument. It is responsible for taking in and coordinating time interval measurement. The microprocessor is responsible for controlling the instrument. It is responsible for taking in and coordinating time interval measurement.

**Applications**

Many applications in industry require the use of large tanks for storage, which can include the chemical, food, oil, mining, water supply and beverage industries. Accurate level data of the contents of every tank is vital where inventories, batching and process efficiency are critical measurements. Due to the large surface areas of these industrial storage tanks, a small change in level corresponds to a large change in volume. Therefore, if the volume of the tank has to be strictly controlled, a very accurate measurement of level is required.

**INTRODUCTION**

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