A diagram of a process

Description automatically generated

**Inputs**

For the sensing unit I could use a light sensing Unit, with an LDR or photodiode that can detect changes in light intensity which may indicate an oncoming collision. Or I may use a Hall Effect Transistor to detect magnetism from other vehicles or a sudden change in wheel revolutions which may indicate an obstacle.  
**Comparator Unit**

This unit will use an Op-Amp configured as a comparator to see if our input signal is significant or not.  
**Controller Unit**

This unit will use a microcontroller to determine the type of output that will be used and or even to ignore the signal altogether.  
**Transducer Driver**This section will be used to increase the power of the incoming signal to be suitable for any potential output. Could use a transistor or an Op-Amp

**Visual Output**

This section is an alert to the driver that can be seen. Using an LED or a 7-segment display can be used to achieve this.

**Braking Module**

This section is the physical braking component of the system where I can use a motor, solenoid or a servo to achieve the desired effect.