

Project 2016

Medical theme

Wireless Stethoscope



<https://www.ekuore.com/en/wireless-stethoscope/>

Vein Finder

- AccuVein



Caloric Density Milk Test Machine

- Creamatocrit Plus



Biliblanket



Baby Monitor

- Sproutling baby monitor



IV Tube leaking detection/ reverse blood flow detection



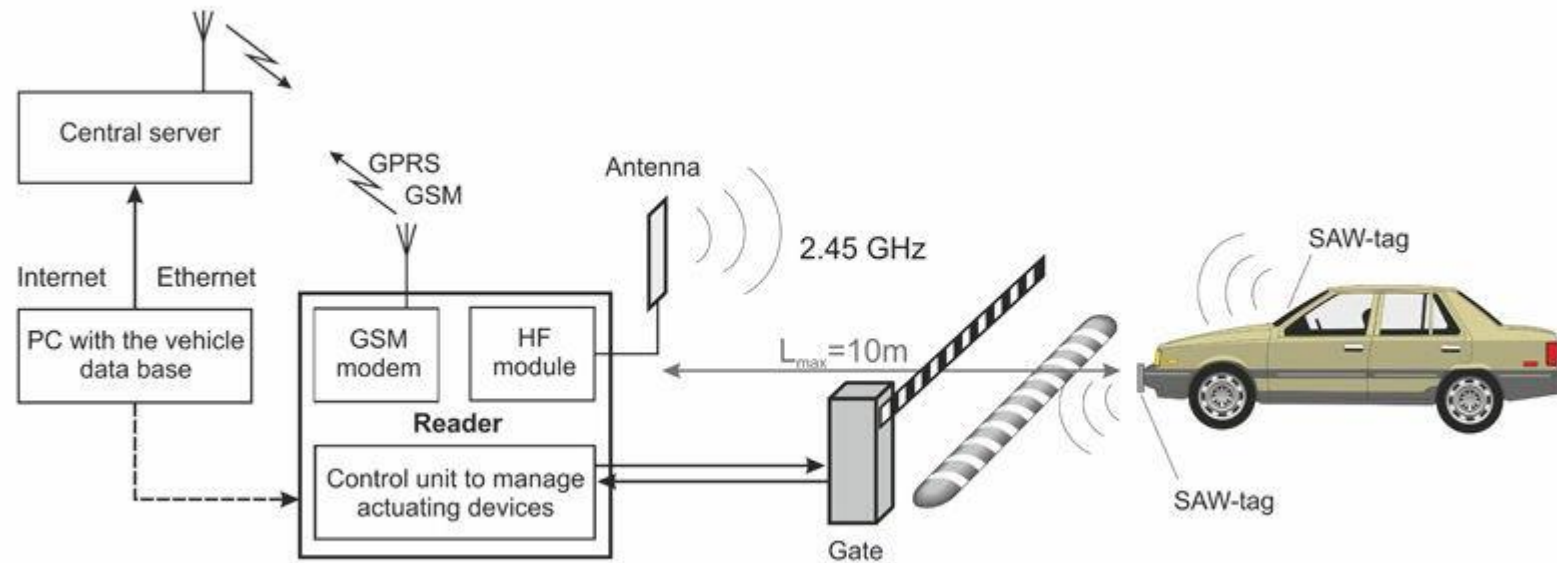
Project 2016

Surveillance theme

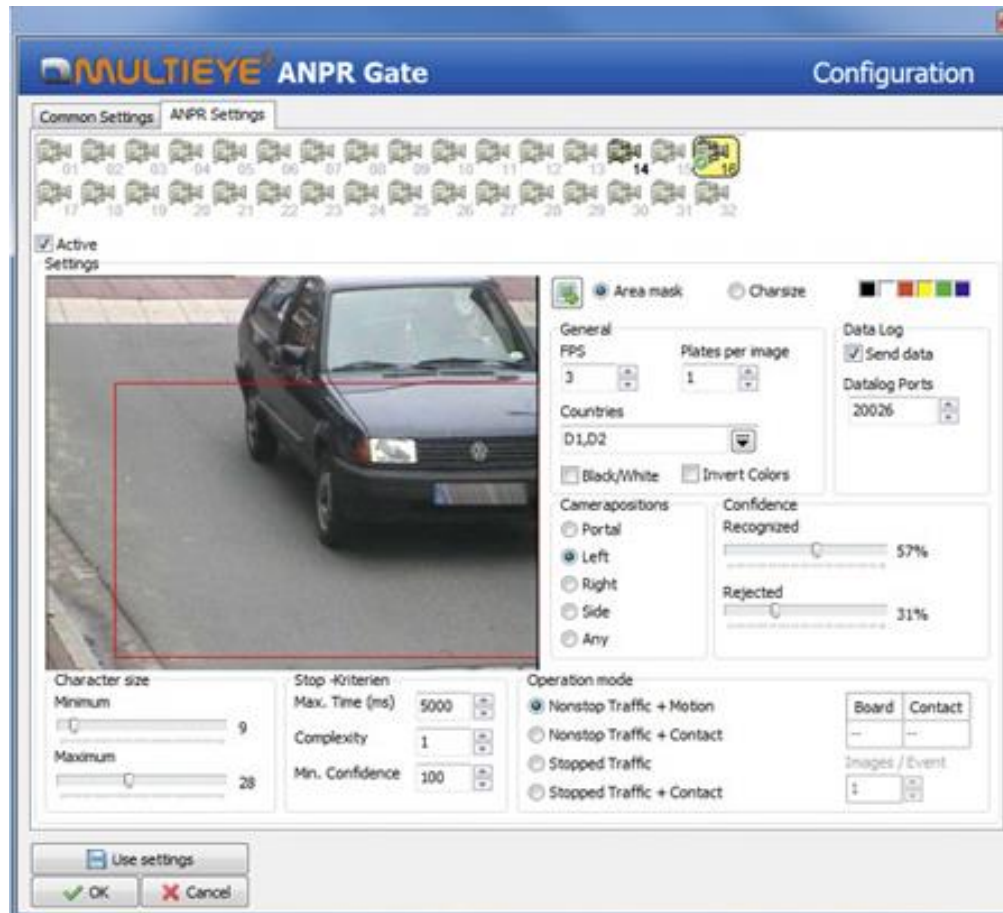
Gate Barrier System with Proximity Sensor



3-5 meters Passive RFID Reader based Vehicle Detection for Gate Barrier



Camera based Vehicle Detection for Gate Barrier



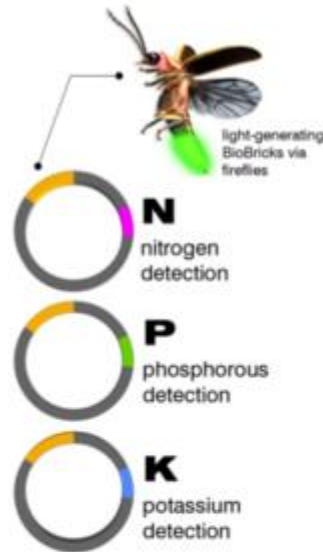
Vehicle Camera Streaming



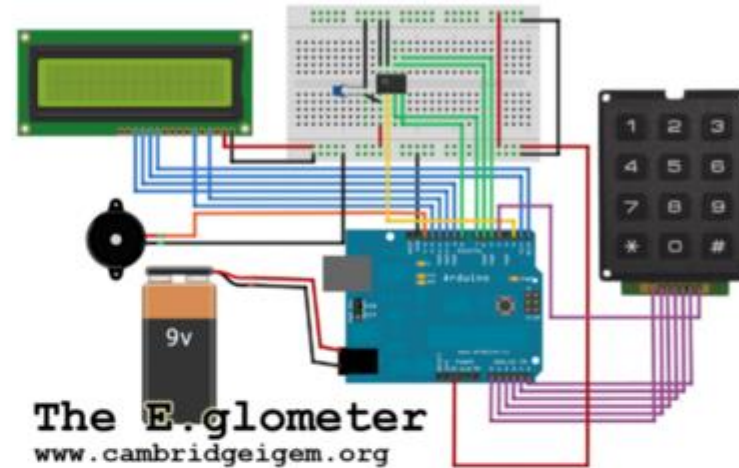
Project 2016

Agricultural theme

NPK Sensor

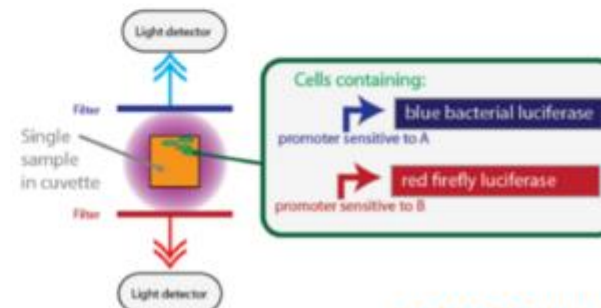


Cambridge's iGEM team envisioned a detection device that can quantify detection by measuring light emitted by bioluminescence bacteria. NPK soil tests could possibly be performed in a similar manner with NPK detecting bacteria strains.



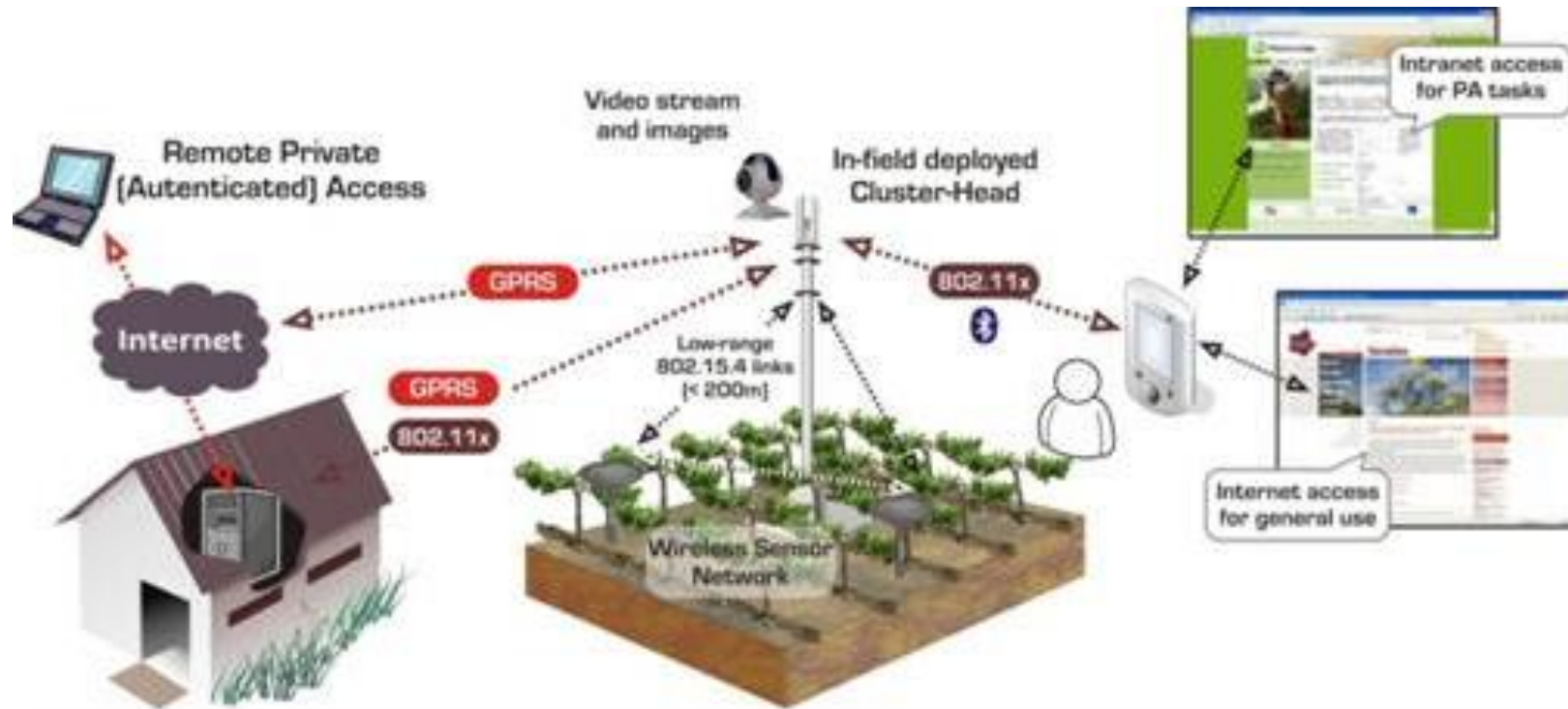
NPK Biosensor System

Three lines of *E. coli* bacteria modified to detect nitrogen, phosphorus, and potassium respectively. Each strain also contains bioluminescence genes to emit light upon detecting the respective nutrient they are tasked with detecting. Using Cambridge's E.glo meter, an open source tool to quantify the amount of light emitted by bioluminescence bacteria, the amount of nitrogen, phosphorous, and potassium can be determined.



HELIOSlabs

Wireless Sensor Network in Rice Farm



Project 2016

Smart Home theme

Smart Adapter with Wireless Sensor Network

