The home security market is currently dominated by smart lock companies, like Ring and Nest. These solutions are vulnerable to power outages and hacking, and often require complex installation.

Our innovative sensors offer a more reliable and affordable alternative. These simply installed devices allow users to remotely monitor their door's lock status at a fraction of the price of traditional smart locks without the complexity or vulnerability.

**Design Approach**
- Determined stakeholder needs and requirements
- Analyzed a door look to understand functions and size
- Generated concepts for different design options
- Created a decision matrix to find the most suitable components
- Created a functional decomposition diagram of components needed to detect the lock status and send a remote signal
- Developed an MVP to present to Saratech execs for feedback
- Purchased materials and began building, testing, and validating physical prototypes, and app/software

**Product Features**
- **MCU**: Robust, power-efficient, WiFi enable computer
- **Sensor**: Tracks the position of door locking mechanisms
- **Adafruit Server**: Enables devices to connect to the sensor
- **Mobile/Web App**: Displays lock status of users' doors, user guide

**Future Improvements**
- **Battery Life**: Improve power efficiency and battery capacity
- **AWS**: Integrate AWS for stronger cloud computation
- **Smart Devices**: Smart home device compatibility for accessibility
- **Notifications**: Lock reminders before users leave the driveway
- **Miniaturize**: Scale down product dimensionally

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