Affordable Sump Pump Monitoring System

Opportunity and Significance
Most houses have a sump pump but we do not know due to the absence of a monitoring system. There are available sump pump monitoring systems but they can cost from $50-$160. This affordable early detection system can replace the existing systems with a cost up to $20.

Technical Objectives
- Minimize cost
- Easy to use
- Simple Design
- Readily available components to buy
- Technology savvy

Technical Approach
- Arduino Software (IDE) compatible WIFI microcontroller connected to float switch
- Blynk mobile application for text and email notifications
- Added buzzers and LEDs for audio-visual alert at home

Next Steps for Development and Test
- Development of a mobile application compatible with IOS and Android that can work solely with the design
- Add an enclosure with a display to enhance marketability and product quality improvement
- Integration of monitoring system with sump pump operation

Commercialization Plan & Partners
We would need to improve the product design with emphasis on the aesthetic value. Possible partners include companies like Spire Integrated Systems and Amazon for product integration with other home automation systems.

References
- https://github.com/blynkkk/blynk-library
- https://github.com/esp8266/Arduino
- http://fritzing.org/home/

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