Smart Cane

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Problem: Visually impaired people face a lot of problem during navigation (like obstacle detection) and need human assistance for safety.
Product: A cane which gives alerts on obstacle, fire, water detection and also enables the user to send message and location to trusted contacts.

Initial Prototype:

A Kit to detect obstacles and fire that sends alerts using mobile app connected to bluetooth module.

Business:

Approached potential users for acceptability.
Marketing can be through NGO's, online and direct sales.
Cost of our product ranges Rs.2000-2500/- .Expected revenue per month is Rs. 2,10, 000/-

Technology:

- Arduino IDE (C language).
- Arduino interfacing to GPS & GSM, APR module.(speaker)
- APR module interfacing with obstacle, fire & water detector for audio alerts.

Customer Stories:

. Helpers of Sylom blinds suggested that, kit should be smaller than the current size.

. students of Sylom blind felt that, obstacle detection is useful than other.

Progress:

- Week1: Analyzed product scope.
- Week2: Approached potential users for feedback in Sylom blinds.
- Week3: Assembling kit and placed on a stick.
- Week4: Replaced app based audio alerts with physical speaker.
- Week5: Replaced mit app base messaging with GPS & GSM modules.
- Week6: Addition of water sensor and testing.

Contributors:

- Mr. Badrinath Chitti: Suggestion to work on test cases.
- Dr. Vijaya Kumari: Change audio message through bluetooth & headphones to physical speaker.
- Mr. Sandeep: Addition of ultrasonic sensors.