SIMDEV: Visually Impaired Home Monitoring System

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The project proposal was to develop a system of home monitoring that is affordable for the visually impaired. The project came in trying to help the visually impaired in their day to day, as often, even when at home, he does not know if the light is on or the windows are open and checking this manually can be troublesome and uncomfortable, beyond to offer risks. The system consists of an application for the Android platform and monitoring devices scattered around the house. It will analyze the openings of the house, the electronic equipment and residential lighting, and in each case, a suitable device will be implemented for obtaining the status (whether it is opened/closed or on/off) of the equipment.The application updates the status of the mobile equipment whenever the visually impaired are at home and ask for an update. Besides getting the statuses, the smartphone turns them into audio message, so the user can take knowledge of them. The feature that allows the visually impaired to use the Android is the TalkBack, which was adapted to the application. So far, we have developed the application that reports the status of all installed equipments and a monitoring device of each type. We are currently making the prototype available to the target public (visually impaired), so that, through a questionnaire administered to them, we can validate the performance of our research.

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