

MJF Smart Cane

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Summary of the Project We found that in Palestine the percentage of blind people are 14.6% ,in the world there are about 45 million people and in the Educational institutions there is about 634 blinds students. this project helped the blind person to deal with his daily life in a normal way without any obstacles or problem(water obstacles, Physical obstacles, darkness, to give the blind full privacy) and also it helps other people to sense their presence and to offer them a help that's all by the incarnate that we prepared which contains many sensors each one has a different job and a certain voice order this project is a simple solution to the problem that faces the blind and it also gives the blind the privacy and self-independence and self-reliance. As a student's we work with our teacher, so we made a smart cane (MJF) that helped them to deal with the daily struggles and to solve their problems . By making a prototype for our project and it solved the following problems by these sensors:

- water obstacles: by the water sensor that's in the end of the cane.
- Physical obstacles: by Ultra sonic sensor.
- Darkness: by using light sensor to tell the blinds and the people surrounding them.
- Privacy: by using motion sensor
- If the cane got lost or stolen: we used GPS to find it.
- The blind will receive voice commands through Bluetooth headphones
- The batteries recharged by Solar cells or by using The charger.