COE 485: Senior Design Project (141)

Color Detector for Impaired People

Project Plan

Title

Color detector for the impaired people.

Problem Statement

The project help overcome challenges that visually impaired people face in daily basis from identifying clothing color to even appreciate art, by creating a way to detect colors through biofeedback. Blindness is the condition of poor visual perception. An estimation from World Health Organization state that 285 million people are visually impaired worldwide, 39 million are blind and 246 million have low vision.

Outcome

A wearable device that can help visually impaired people, to detect and identify colors by sending a biofeedback such as voltage signals, vibration, auditory pitches, pinboards, and reading pins.

Requirements

- Sensors to detect colors.
- Vibrators to provide feedback for visually impaired person.
- Control unit with a proper power source.
- Wearable device.
- Lightweight.

Advisor

- Dr. Yahya Oasis
- Dr. Jihad Al-Sadah

Team

- Ibrahem N. Alturkestani. 200923810
- Faris Yousef Al-Baitoni. 200825340
- Mohannad M. Hakami. 200816800

Time Table:

Task\Week	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Project plan														
Design														
document														
Design														
presentation														
Final report														
Final														
presentation														
Final														
demonstration														
identify the														
engineering and														
marketing														
requirements														
Formulate														
specifications														
identify														
different														
solutions and														
choose one														
Identify														
hardware and														
software														
needed														
Identify the														
engineering														
tools needed														

Purchasing							
needed parts							
programming							
the system							
Physical							
integration							
System analysis							
and output							
measurements							
System Final							
tests and solve							
any issues							