#### **Project definition**

Creating a shoe which can reflect the emotional status of wearer.

### objectives & goals

Explain what the project will achieve?

It will provide understanding and exploring a different way of emotion expression by wearable technologies. Besides it helps to create more understandable and healthy relationships, exploring our inner self much more, adapting the environment.

## target audience/user

Women

#### **Background** information

Why and how did you come up with this project?

After my internship decided to be a shoe designer and this is the reason of why I want to design shoe which has a different purpose then others. After my research I find out that wearable technologies can turn in a multimedia display according to interest of producer like changing patterns, changing composition and becoming in an expressive form. These wearable can allow wearers to refresh their appearance in parallel to emotional status. Also, human body is the core of expression of emotions; mimics, body positions, facial expressions are the examples and the inner feelings can be reflected to outside by detecting change in heart rate, blood pressure, blood flow, respiration, sweating, secretion, pupil dilation, trembling, brain waves and muscle tensions. In other words, the combination of two technology, computation and materials creates new form of expressing and people always try to enrich the communication in some way. For examples this technology can be used on people who are lack of self-confidence or people who can't speak or express their self properly like autistics. These are the reasons why I want find enhancing emotions is important and go on with this project.

What problems will be solved or addressed by realizing the project?

Interaction between two people can have observable clues and behaviors and reactions can be changed suitably, people will learn more about their selves and others by non-verbal communication. Also, if we can see our emotions physically it would be easier to trying to change it and adapting to place. This can also effect to gain a healthier relationship with somebody when this change in inner self reflects our behavior.

What are your challenges?

What will you gain by working on it?

It can build non-verbally communication in community and in private places. Also it enriches design by changing colors and patterns, helps people to learn more about their moods and connect with their spirits.

What are the related topics in other disciplines?

There are furniture which developed with leds and have different purposes. For example Philips led lamps can change color by using the touch-sensitive color wheel and can match your mood or makes design of home changeable

What are the similar projects, web sites, art works, etc?

This system was used on dresses by using Led, El wire system and sensors. Some of them used in just design purpose some of them were interactive like sensitive to music, emotions, pressure etc. Philips also has an emotion sensing dress 'Buebelle', the flashy dress, is a two layered garment designed to monitor the emotions of its wearer. The inner layer consists of biometric sensors that detect the changes at the wearer's body. The outer layer is used to monitor these changes with light emission

http://www.lucentury.com/

http://www.instructables.com/id/Music-LED-Light-Box/

http://www.youtube.com/watch?v=YhKLQWYUGW0&feature=related

 $\underline{\text{http://www.design.philips.com/about/design/designportfolio/design\_futures/design\_probes/in} \\ \underline{\text{dex.page}}$ 

http://www.cutecircuit.com/about/

http://www.youtube.com/watch?v=6IAIXaDKHMI&feature=related

http://makeprojects.com/Project/LED-Shoe-Clips/1178/1

# detailed project description

Write detailed description of the project.

I will be designing a shoe that will contain mood sensors that will transmit it to leds and it will reflect to outside as a change of color. I am thinking about embedding leds into transparent heels and it will have a specific color- black that will accommodate with each led color.

## Scope of the project

Explain what will be covered and what will not.

## Required know-how and resources

Needed know-how and abilities

How Leds and Sensors work, how to connect them with materials, how to programme them.

*Needed resources* (information, experience, people, etc)

I have an experience about designing and making shoe, i am going to need a place where can supply shoes materials.

Hardware: Temperature Sensor, Pulse Sensor, PIC Microcontroller, Wireless Link

Software: Mood Machine programmed in VB.NET