ECE-387 Final Proposal

Introduction:

In gyms, there is group of people needs extra care. They are child, elder or physical disability that they are vulnerable under the emergency. We cannot follow them all the time. My project will protect them from potential risk such as getting lost, having a fall or emergency health issue. It also works for every come to gym.

How It Work:

My project can detect is the user fall and avoid misinformation. When fall has been detected it will alarm and send alert message to the medical or staff who has token first-aid training. It also sends the position information by GPS and send the area to the staff or display on map. It can detect the heartbeat of user. when the heart beat shut down or heart beat rate rapidly increase or decrease, send alert message and sound alarm. User can terminate or trigger the alarm by themselves, if they feel good or not good before emergency happened. It is WIFI connected so, you can see your heart beat and position in gym on your phone app. If people get lost we also can find them by monitor their position.

More Function:

It can be a navigator that find the place you want to go.

Give it to everyone come to gym but they can choose the function enable also record their running or walking track and gave feedback time, speed and distance. Count how many times you did in exercise like push-up. Also monitor your heart beats rate that you can set the warming and alert rate of it.

Material Required:

Accelerometer: For detect fall and Count exercise times.

Pulse Sensor: Heart Beat rate monitor.

GPS: position and record running track.

WIFI Module: Web Server that connected user and host, and Information transmission between them.

Mobile App for display.

Buttons