

# Game using GLCD and accelerometer

## Overview

This document provides supporting material for a project on “Game using GLCD and accelerometer” on Pt-51. The project requires the following components - Pt-51 Board, an accelerometer and a 128x64 pixels Graphical LCD. GLCD is used as display and accelerometer as the input device.

## Learning Objectives

1. Understand and interface the accelerometer
2. Understand and interface 128x64 Graphical LCD (GLCD)

## Problem Statement

The choice of game is left to the students.

## System Description

### Accelerometer

Digital or analog accelerometer can be used for giving input. Digital accelerometer is preferred, since noise pick-up is less.

For more information about the accelerometers from the following links

1. [Analog accelerometer\(MMA7361L Nex Robotics\)](#)
2. [Digital accelerometer \(ADXL345 Analog Devices\)](#) - It measures the static acceleration of gravity in tilt-sensing applications, as well as dynamic acceleration resulting from motion or shock.

Tap sensing detects single and double taps in any direction. Free-fall sensing detects if the device is falling.

### GLCD

For information about GLCD refer the following link  
[GLCD \(Graphical Liquid Crystal Display\)](#)