<p align="center">2D Graphics Engine Homework Requirements</p>
<p align="center">HL</p>

This home work counts total 2 points. The exported zip homework submission on line to CANVAS is required. This home work is a preliminary step to build 2D vector graphics processing engine on LPC1769, you will

1. Design and prototype LPC1769 micro-processor system board, and enable one SPI LCD display.

2. Generate 2D screen saver of rotating squares based on vector graphics formula discussed in the class.

(1) use $P(x,y) = P_1(x_1,y_1) + lamda * (P_2(x_2,y_2) - P_1(x_1,y_1))$
with lamda = 0.8 by default, and lamda = 0.2 when prompted for user selected input;

(2) create two dimensional rotating patterns with data set of "parent" square;

(3) randomized location by using rand() function;

(4) randomized reduction of the parent square;

(5) choose one color for each set of rotation patterns, and rotates at least 10 levles or higher;

(6) continue to display each set of patterns without erasing the patterns.

(END)