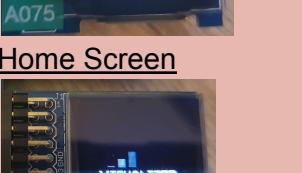
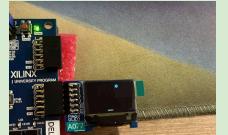
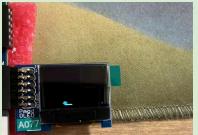


User Guide

Student and Description Name	Description	Images
Group S2-17 “SmartPhone Simulator”	<p>The system acts like a smartphone whereby there is a lock screen and a home screen. Once unlocked with the right password, the user can choose between 4 applications (Music-Jingle App, Tic-Tac-Toe Game, Bouncing Ball Game, Audio Visualizer).</p>	
Datta Anitej “SmartPhone UI” & “Audio Visualizer”	<p><u>(Smartphone UI : Responsible for integration of all applications)</u></p> <ol style="list-style-type: none"> 1. User is greeted by the initial lock screen at the start of the program. All LEDS blink in this state. Put in the password by turning on SW8. 2. Turn it off when prompted by the screen, after which all LEDS turn on sequentially then turn off to indicate unlocking of the app. 3. To scroll across the pages, press BTNR to scroll right and BTNL to scroll left (Last page is a placeholder wallpaper). All LEDS are off in the home screen. 4. To select an app, press the “home button” BTND and to return to the home screen, press BTND again. <p><u>(Audio Visualizer)</u></p> <p>This app takes in 12 bit mic data from PMod Mic via module Audio_Capture, then displays the value in the form of bar graphs, from Red to Orange (10 colours). Red indicates low volume, whereas Orange indicates high volume. Height of the bar graph indicates the volume factor.</p>	 <u>Initial Screen</u>  <u>Correct password</u>  <u>Home Screen</u>  <u>Visualizer</u>
He Ning “Music - Jingle App”	<ol style="list-style-type: none"> 1. When the application is launched, the display will show the available songs/jingle on the screen. An arrow is presented to show the current position of the cursor. 2. The user can use the btnL and btnR button to navigate the menu. If the user reaches the end of the menu, it will automatically resume at the top. If the user reaches the start of the menu, it will resume at the bottom. 3. Press btnC to confirm play. 4. When playing, the seven segment display will show the current note being played, the first value being the note name, second being the octave it is in. E.g., X means X4, XH means X5, and XG means X#4. 5. Press btnD to return to the main screen. 	 <u>No song playing</u>  <u>Note value updating when playing</u>

Glenn See “Tic -Tac -Toe Game”	<ol style="list-style-type: none"> 1. Tic-Tac-Toe board with each square containing a number 1 to 9 and LD0 is lighted up. (LD0 indicate no winner, play on) 2. Each switch corresponds to the number in the box. (E.g sw[1] controls Box1, sw[2] controls Box2, etc.) 3. Seven segment shows the current player. 4. When Player1 (green square) wins, seven segment shows “1111” and LD1 lights up. 5. When Player2 (blue cross) wins, seven segment shows “2222” and LD2 lights up. 6. If it is a draw, seven segment shows “----” and LD0, LD1, LD2, LD3 lights up. 7. When either player wins, the colour of the winning line turns to pink. 8. When either player wins by placing on <ol style="list-style-type: none"> a. 123, LD5 lights up b. 456, LD6 lights up c. 789, LD7 lights up d. 147, LD8 lights up e. 258, LD9 lights up f. 369, LD10 lights up g. 357, LD11 lights up h. 159, LD12 lights up 9. Turn off all switches and press btnC to reset the game. 	 <u>Initial (P1 turn)</u>  <u>P2 turn</u>  <u>P1 win</u>  <u>P2 win</u>  <u>Draw</u>
Li Dongwei “Bouncing Ball Game”	<ol style="list-style-type: none"> 1. When the application is selected, the game starts and a ball appears on the top left of the screen as well as a bar on the centre bottom of the screen. 2. Use btnL and btnR to adjust the position of the bar. 3. The player should try to catch the ball with the bar. 4. When the ball touches the bar, the ball will bounce. 5. The ball will descend at the beginning and go right or left depending on the part of the bar the ball bounces off. 6. If the player fails to catch the ball, it will appear on the top right of the screen. 7. The ball will change direction when it touches the other three edges of the screen. 8. Player may use SW15 and/or SW14 to change the ball's speed. 	 <u>Game start</u>  <u>Miss the ball</u>  <u>Catch the ball</u>