

## LIST OF FIGURES

<b>Figure 2. 1</b> Solution Concept Design .....	5
<b>Figure 3. 1</b> Circuit Diagram .....	11
<b>Figure 3. 2</b> Block Diagram.....	11
<b>Figure 3. 3</b> 3D Design 1 .....	13
<b>Figure 3. 4</b> 3D Design 2 .....	13
<b>Figure 3. 5</b> Toddler Using the Scales .....	14
<b>Figure 3. 6</b> Arduino IDE Software [13] .....	15
<b>Figure 3. 7</b> Arduino Nano Board [14].....	16
<b>Figure 3. 8</b> Liquid Crystal Display.....	17
<b>Figure 3. 9</b> Ultrasonic Wave Works.....	18
<b>Figure 3. 10</b> Ultrasonic Sensor.....	18
<b>Figure 3. 11</b> Foot Length Measurement Illustration .....	20
<b>Figure 3. 12</b> Measure a Foot Length on the Baseplate.....	20
<b>Figure 3. 13</b> Strain Gauge Sensor Works.....	22
<b>Figure 3. 14</b> Wheatstone Bridge Circuit.....	22
<b>Figure 3. 15</b> Inter-Integrated Circuit .....	24
<b>Figure 3. 16</b> Inter-Integrated Circuit in LCD .....	25
<b>Figure 3. 17</b> HX711 Module .....	26
<b>Figure 3. 18</b> Flowchart .....	27
<b>Figure 3. 19</b> Foot Length and Height Linear Regression of Male Toddler.....	32
<b>Figure 3. 20</b> Foot Length and Height Linear Regression of Female Toddler .....	32
<b>Figure 4. 1</b> Prototype of the Scale .....	37