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| **Group** 27 | Item Tracker |
| **Major:** | **Team members:** |
| CS | Mohammad Aljagthmi |
| EE | Ryan Ly |
| CEG | Jake Manser |
| CS | Donald Taylor |

**Design Constraints**

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| Const No. | Constraints |
| 10 | Device height shall not exceed 45 cm |
| 20 | Device depth shall not exceed 45 cm |
| 30 | Device width shall not exceed 60 cm |
| 40 | Device weight shall not exceed 20 kg |
| 50 | Device battery power shall not exceed 10 Ah |
| 60 | Device shall comply with UL60335 |
| 70 | Device shall comply with one or more of the standards under IEEE 802.11 |
| 80 | Mobile application shall be compatible with Android 4.4 or newer |
| 90 | Mobile application audible tone shall not exceed 80dB |
| 100 | Device LED shall not exceed 60 lumens in brightness |
| 110 | Device shall function in temperatures above 32­­­­0F |
| 120 | Device shall function in temperatures not exceeding 1500F |
| 130 | Device battery supply to built-in Wi-Fi antenna shall not exceed 215 mA |
| 140 | Device battery supply to built-in Wi-Fi antenna shall exceed 0.5 uA under normal operation |
| 150 | Device input radio frequency shall not exceed 2484 MHz |
| 160 | Device input radio frequency shall exceed 2412 MHz |
| 170 | Device radio input impedance shall not exceed 50Ω |
| 180 | Device battery supply to all hardware shall not exceed 6V |
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