Team 13: Event Attendance Tracker

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Point Allocation Table:

Subsystem	Requirements	Points
Power Subsystem	• Provide sufficient power to power the OLED display at full brightness with the device active as a discoverable BLE device. • Charge the internal battery safely when provided steady USB power (within standard) while the device is in charge mode.	10
IO Subsystem	• Display must be able to display text (for battery capacity remaining and attendee count) • Power switch must mutually exclusively route power to the regulator or battery charger, from either the battery cell or USB port (but not allowing the battery cell to power the battery charger). • Battery charger must be provided sufficient current to charge the battery cell safely (only from the USB port, and with limited charge current).	10
Control Unit Subsystem	• Must be discoverable as a BLE device using a smartphone within 5±0.1 meters of the booth node. • Communicate over both the I2C bus and USB port for providing information to the booth presenters. • Measure the battery voltage accurately to provide an estimated battery capacity with 5% step increments.	15
External Device	• Should be able to distinguish between booths and correctly identify the closest booth. • Should be able to mark the closest booth as attended upon being the closest for a predetermined time-period. • Should be able to list out the attended booths. • Communicate with booth so that the booth device can display the number of attendees and automatically update it.	15
Total Points:		50