outside_surge_acpwr	• 120V AC, 2A Peak input • Nominal 5% tolerance
surge_conversion_acpwr	• Voltage is protected so that AC power cannot surge above 140V AC • 120V AC, 2A Peak input • 5% tolerance
conversion_robot_dcpwr	• Regulated DC power is inductively transferred to robot. • 13-15V DC
conversion_tx_dcpwr	• DC power will be used to power the location transmitter. • 3-7V DC.
station_robot_dcpwr	• DC power will be inductively received from the charging station. • 13-15V DC
station_outside_envin	• RF signal (visible light) sent from docking station • Robot can detect light from 25 feet away in a dimly lit room
robot_outside_envin	• Surfaces include: tile, short carpet, concrete • Obstacles include: walls, chair legs, cords, clothing
robot_outside_motion	• Speed on all surfaces within 10% • Max speed > 0.3 m/s • 10 min or greater time in motion
capacity/reg_lcd_dsig	• Digital signal representing battery life within + or - 10% • Digital value between 0 and 255 representing percentage
battery_capacity/reg_dcpwr	• 5 V DC • Current sensing, 3 A Max
capacity/reg_return_dcpwr	• 5 V DC • 5% tolerance
capacity/reg_motors_dcpwr	• 5-12 V DC • 10% tolerance
battery_robot_mech	• Sensor leads securely connected to battery terminals • No exposed wiring
LCD →robot_mech	• Securely bolted to robot housing • Connections inside the housing • Display flush with robot exterior
LCD_outside_envin	• LCD of percentage clearly visible from 3 feet away

	• LCD to represent remaining battery life
motors_robot_mech	• Motors must remain stationary in the housing while traversing rough terrain such as tile. • Should withstand a drop from 4 inches above ground
motors_movement/sensing_dsig	• PWM DC signal powering 2 motors • .2-.6 Nm • .7-1W • .05-.2A • 8-12V • Limit switch input signaling a bump • 2 sensors, one on each corner • 5V high
return_movement/sension_dsig	• RF sensor input • 3 sensors, 3 sides • 5V high