EC535 Final Project

Smart Garden System

Technical Report

Houjie Xiong xhj@bu.edu
Xiang Jin xjin1@bu.edu

Abstract

This project presents a smart garden system that automates plant care and offers full remote control. It continuously monitors temperature and humidity, then—either autonomously or at your command—adjusts heating, cooling, or irrigation to maintain optimal growing conditions. A live video feed of the garden is streamed to the Internet, enabling real-time monitoring from anywhere.

log:

1. Uart
2. Analog reading:
    a. Since the ADC function is not enabled by default on Beaglebone Black, we need to edit the device tree to enable it. As followed tutorial
    b. Beaglebone Black ADC: Reading Analog Voltages | Microcontroller Tutorials
    c. After you can get the reading from the in_voltage0_raw, create a C program that calculates the corresponding temperature.