

MICROSOFT AZURE BASED AUTOMATIC WINDOWFARM MONITORING SYSTEM USING RASPBERRYPI & ARDUINO

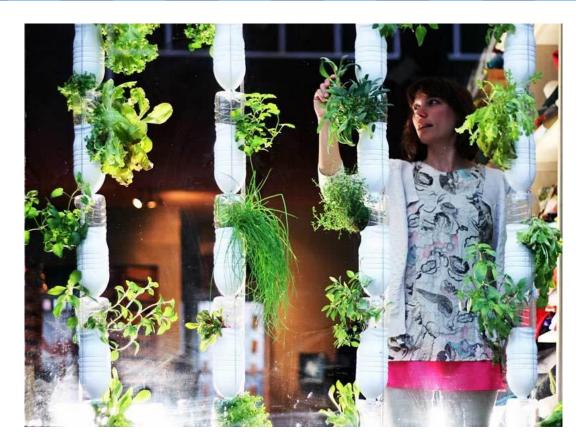


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Background Britta Riley: A garden in my apartment(TEDx)







Britta Riley wanted to grow her own food (in her tiny apartment). So she and her friends developed a system for growing plants in discarded plastic bottles -- researching, testing and tweaking the system using social media, trying many variations at once and quickly arriving at the optimal system. Call it distributed DIY.



Various version of WindowFarm system







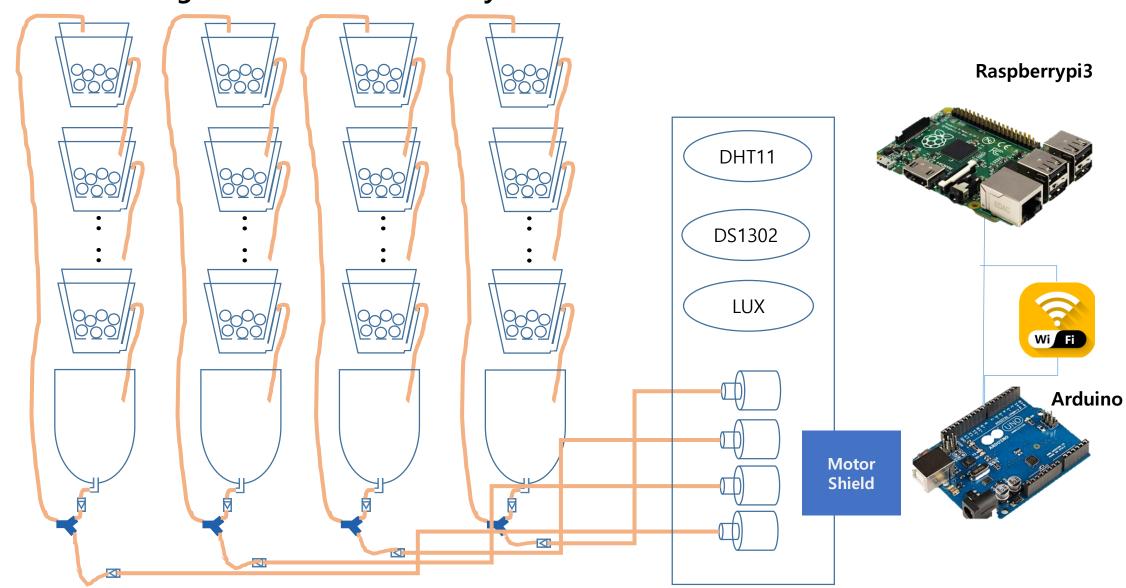






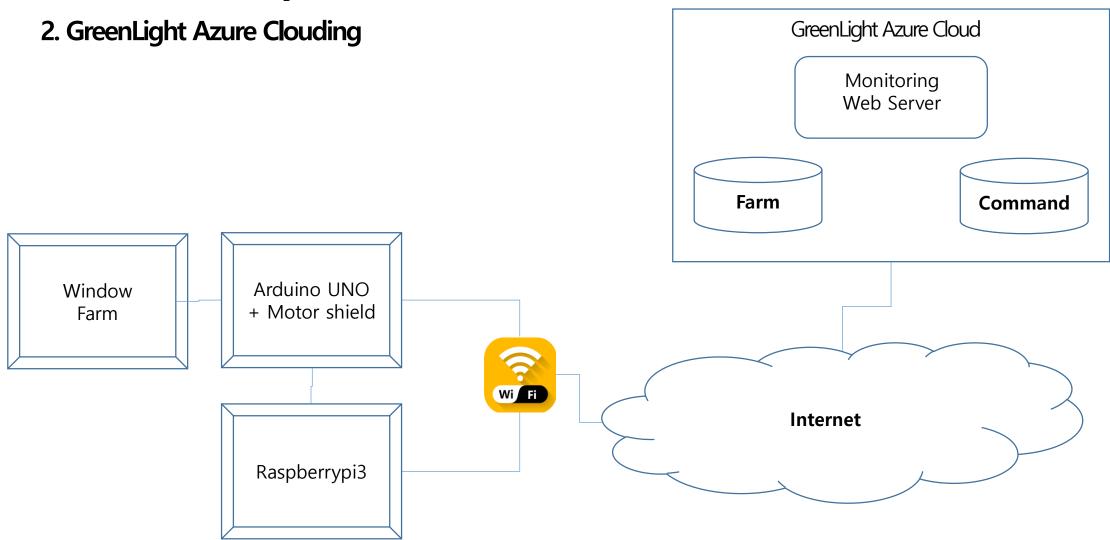
Basic Concept

1. Block Diagram of WindowFarm IOT System





Basic Concept









Future works: Beyond 2017 GIF in Daegu



Arduino based WindowFarm 시스템 확대

오픈소스를 통한 공개

WindowFarm 사용자 확대

Green Village/City/Country 구현

실내온도 2~3도 감소

에어컨사용량 감소 -> 온실가스 배출 감소

지구온난화에 대한 대안 제시

Azure Cloud System을 통한 통합모니터링 시스템 개발

지역별 모니터링

수경재배 특화작물에 대한 연구

실내환경개선과 온실가스배출 감소에 대한 연구

Division of Chemical and Biological Engineering Division of ICT Convergence Engineering - Division of Computer Science Division of Mechanical Systems Engineering Division of Basic Engineering

감사합니다