



الجامعة اللبنانية الدولية
LEBANESE INTERNATIONAL UNIVERSITY

Home Controller

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Outline

- Introduction
- Survey of Existing Methods and Similar Systems.
- System Design
- Implementation
- Conclusion

Introduction

A Home Controller is a programmable machine that allows the user to schedule and repeat tasks by receiving orders using android app via Wi-Fi connection.



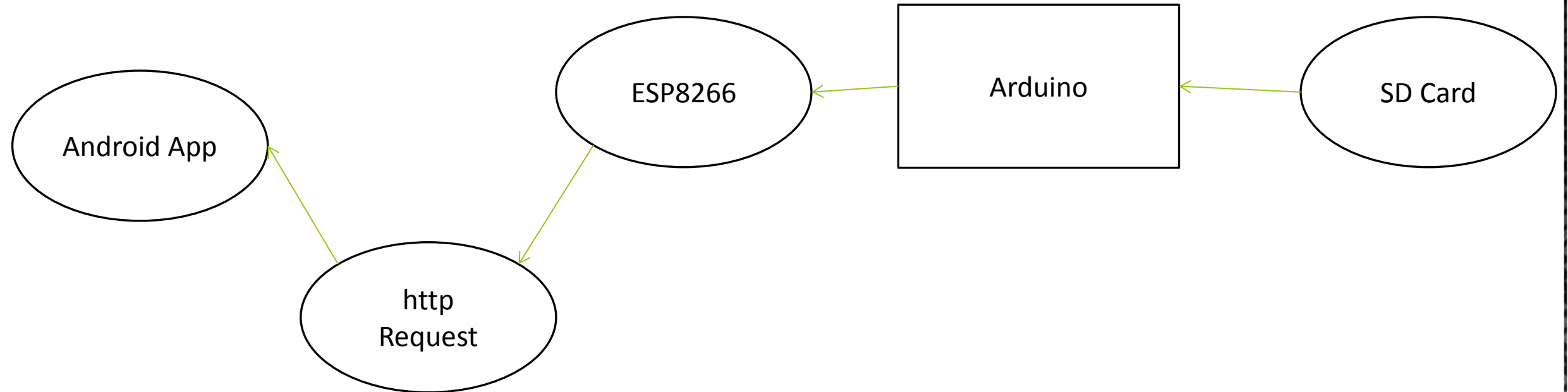
Problem Statement

As automation plays important role in human life, and with everyone owns a smartphone, we attempt in this project to make it possible for anyone to easily control from anywhere through one simple and user friendly android app

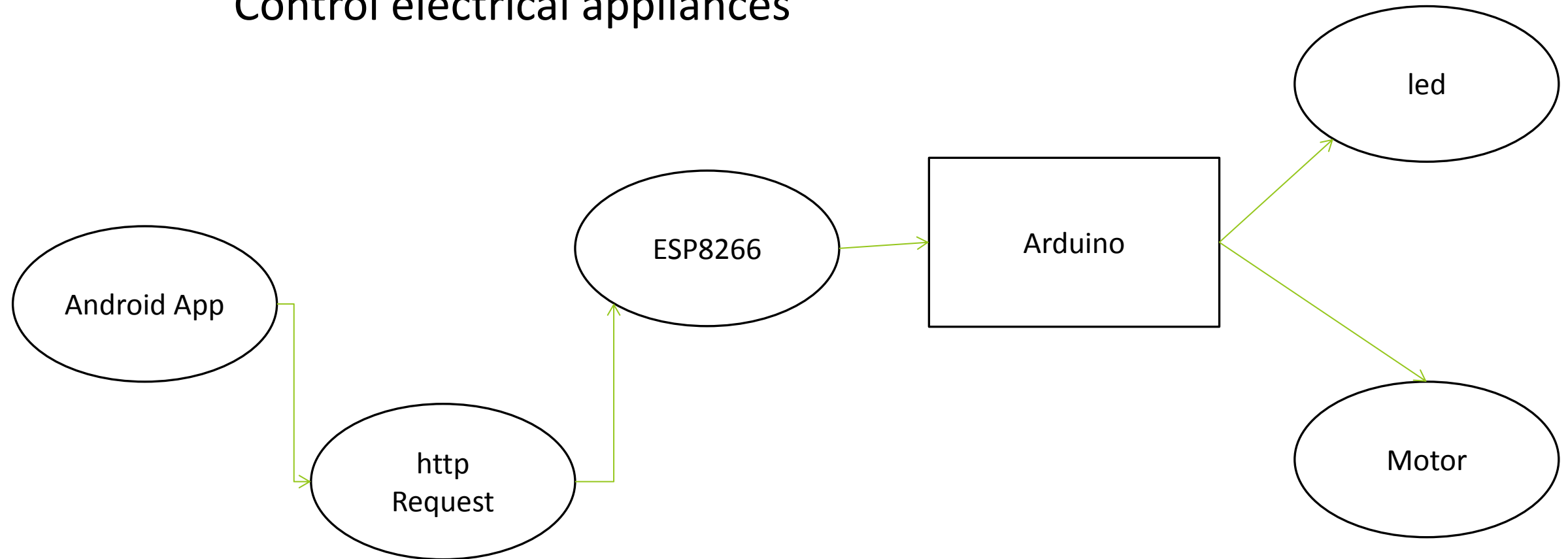
System Design

1. Read current temperature and humidity
2. Display weather status on LCD
3. Save reading in Sdcard.
4. Post Sdcard values to a webserver
5. Android app that displays webview.

Send data to Android app



Control electrical appliances



IMPLEMENTATION

1. Hardware implementation
2. Software implementation
3. Complete system

HARDWARE IMPLEMENTATION

Complete Arduino circuit:

❑ TOOLS USED:

- ❖ **Arduino DUE**
- ❖ **Wi-Fi ESP8266**
- ❖ **1 LED**
- ❖ **Motor**
- ❖ **Jumper wires**
- ❖ **Sensors:**
 - 1.AMT1001 (temperature and humidity)
 - 2.Rain drop
- ❖ **Real Time clock RTC**
- ❖ **Memory Shield SD card**
- ❖ **LCD Keypad Shield**

SOFTWARE IMPLEMENTATION



webveiw

Temperature(C): 25.10 *C

Humidity: 56.45

Weather: Not Raining

SdCard:

09:11:52,Sat,08.04.2017,Not Raining,24.02,31.29

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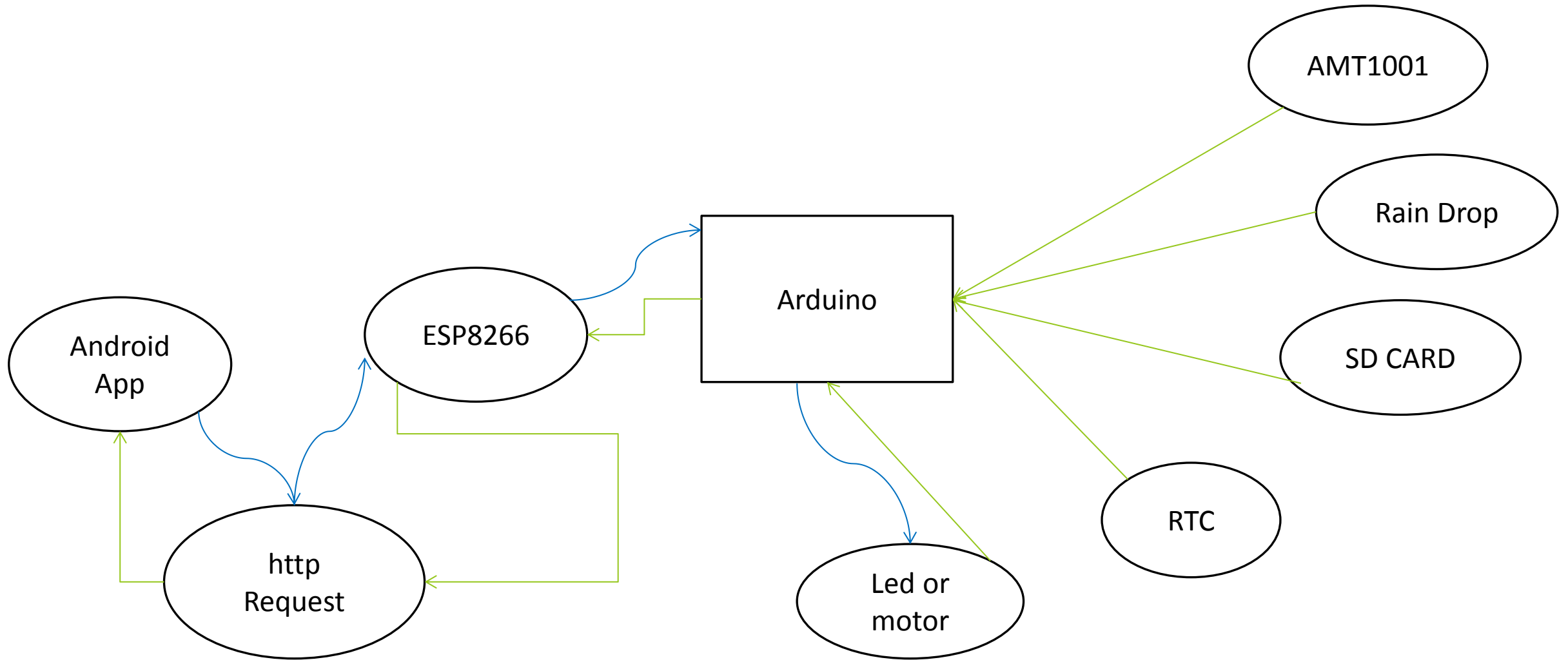
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Complete System



Conclusion

- • Allowing users to control any electrical device inside or outside the house.
- • Develop a user-friendly android app that allows users to interact with physical devices from their smartphones.
- • It can Designed a user friendly and a safe system to control home appliances especially aimed to aid the elders and handicapped.