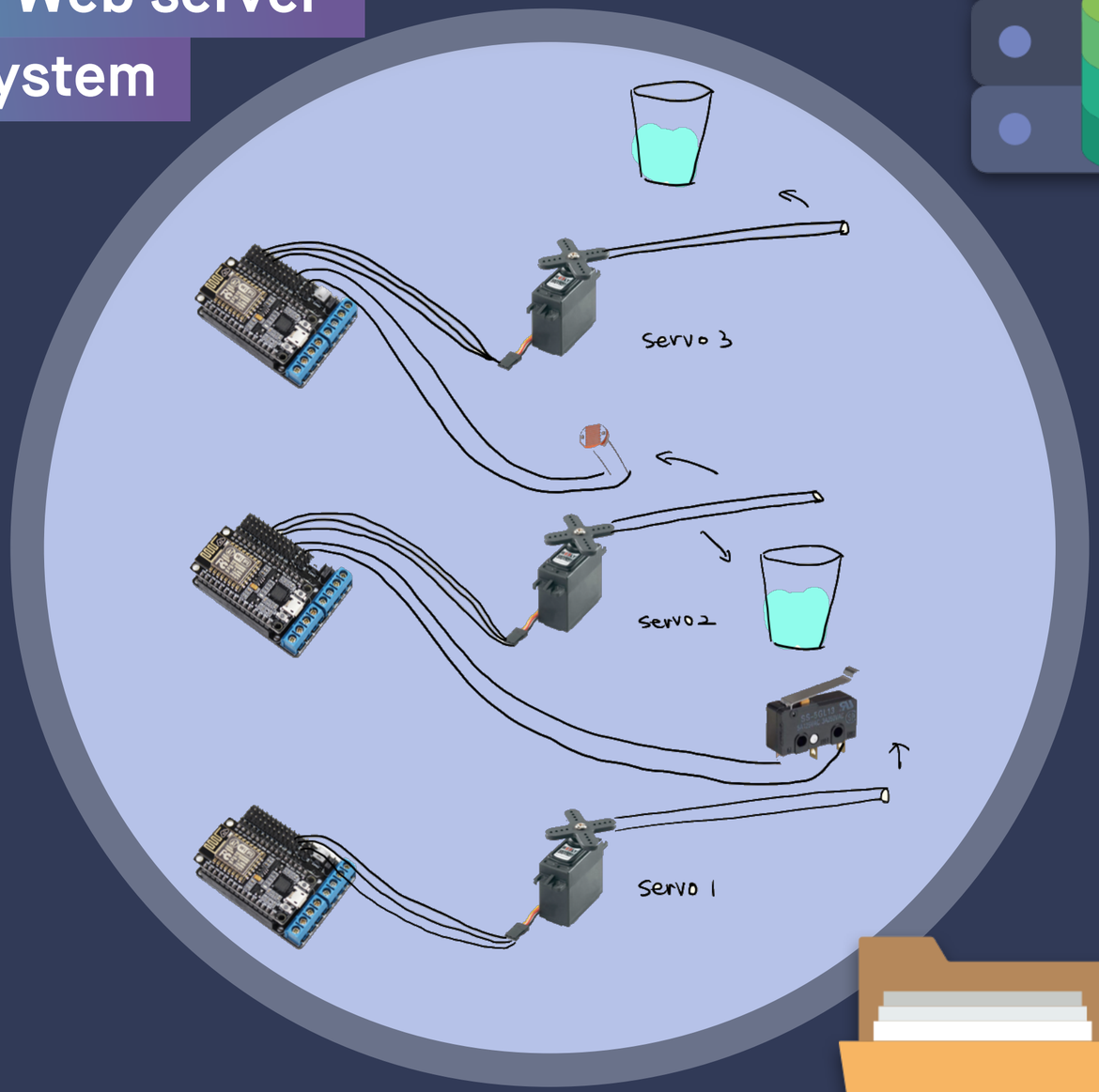
Zixuan(Kevin) Fan

Robot Orchestra: Web server and SPIFFS file system



FLEXIBILITY & SCALABILITY

We implemented the control of the system as web-based. This way, users can control the servos wirelessly and enjoy an elegant user interface online.

In order to make the API more scalable, we decided to utilize the SPIFFS file system on the ESP8266 board. The board itself has 4MB flash memory, which is beyond sufficient for the purpose of simple web markup files. We referred to the official ESP8266 SPIFFS library to accomplish the files upload.

PARTNERS

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SERVER

We utilize the offical ESP8266 WiFi library to setup the server side.

In the Arduino code, we implemented a HTTP request handler to constantly listen to the requests users send from the web interface. In the example, it is a button that send ON/OFF request.

SPIFFS FILE SYSTEM

In order to make the API more scalable, we decided to utilize the SPIFFS file system on the ESP8266 board. The board itself has 4MB flash memory, which is sufficient for the purpose of simple web markup files.

To view details, please visit https://github.com/duanzr1996/EE183DA_Lab3