ECE 477 Digital Systems Senior Design Project − Spring 2017
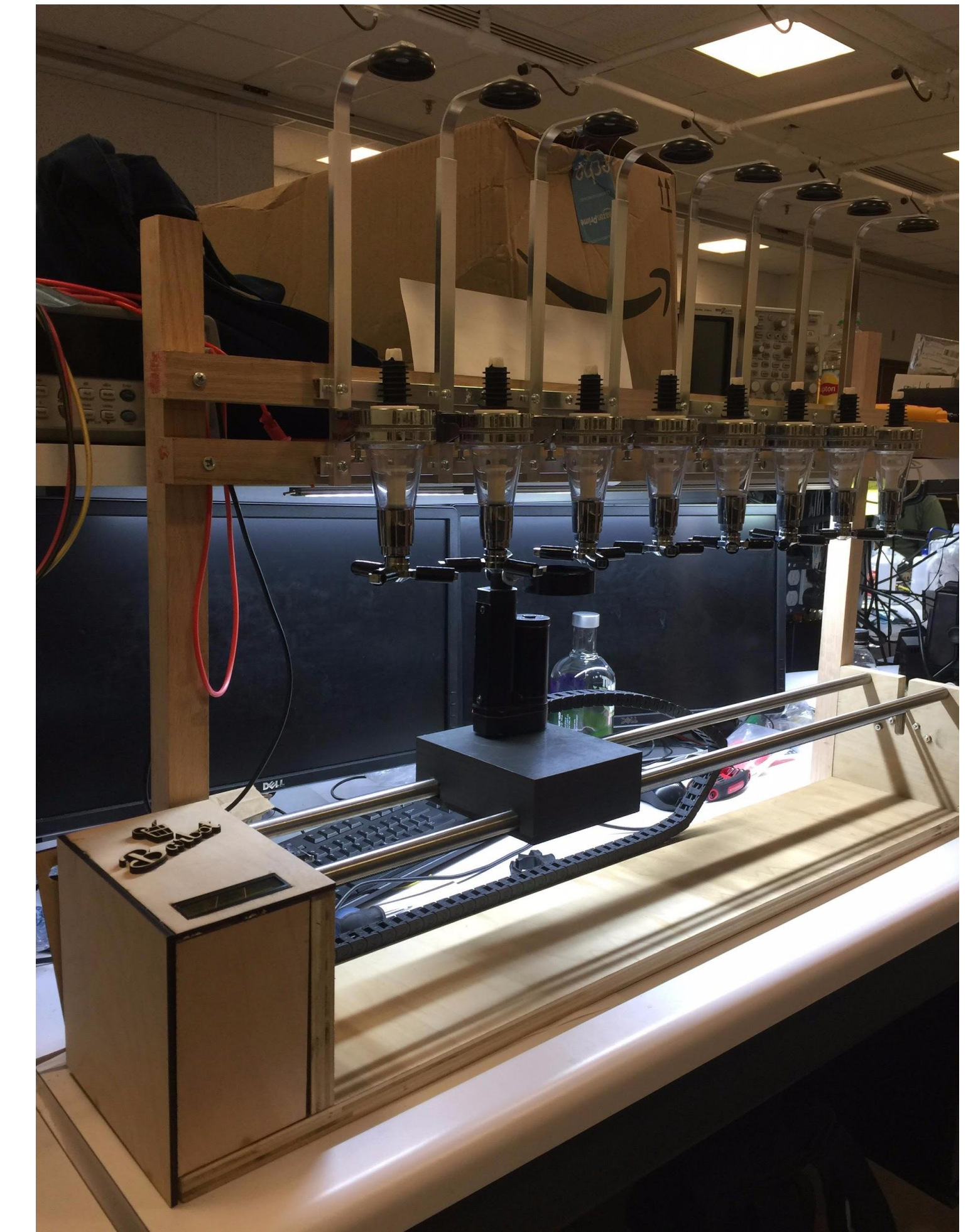
Team No. 8 Barbot

Barbot is an automatic bartender that could prepare drink for users. Users will be provided a mobile application as drink menu which will allow users to select their order. This mobile application communicates with Barbot through Bluetooth module.

In the drink menu, one section is for drinks with default recipes, and the other section allows user to custom their own drinks.

In addition, this machines is built to mix between 8 alcohol or drinks. The information about the status of machine (what kind of drink is it making and whether it is finished) will be displayed on a LCD screen on the device. An automatic slider will carry the cup move along the metal rod to the target position and the target drink will be poured down into the cup. After several times of move, the orderwill be ready for users.

Microcontroller: PIC24FJ128GA010
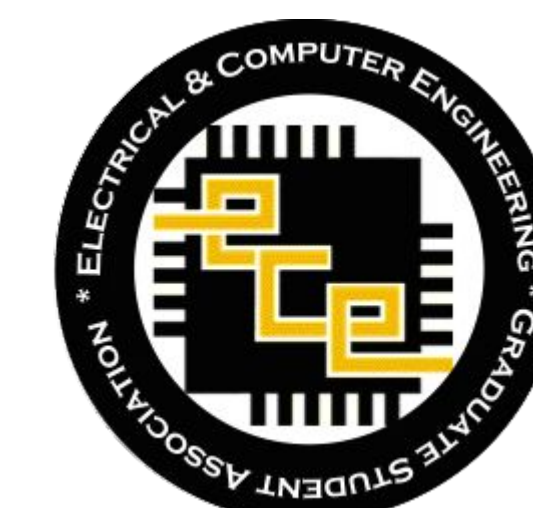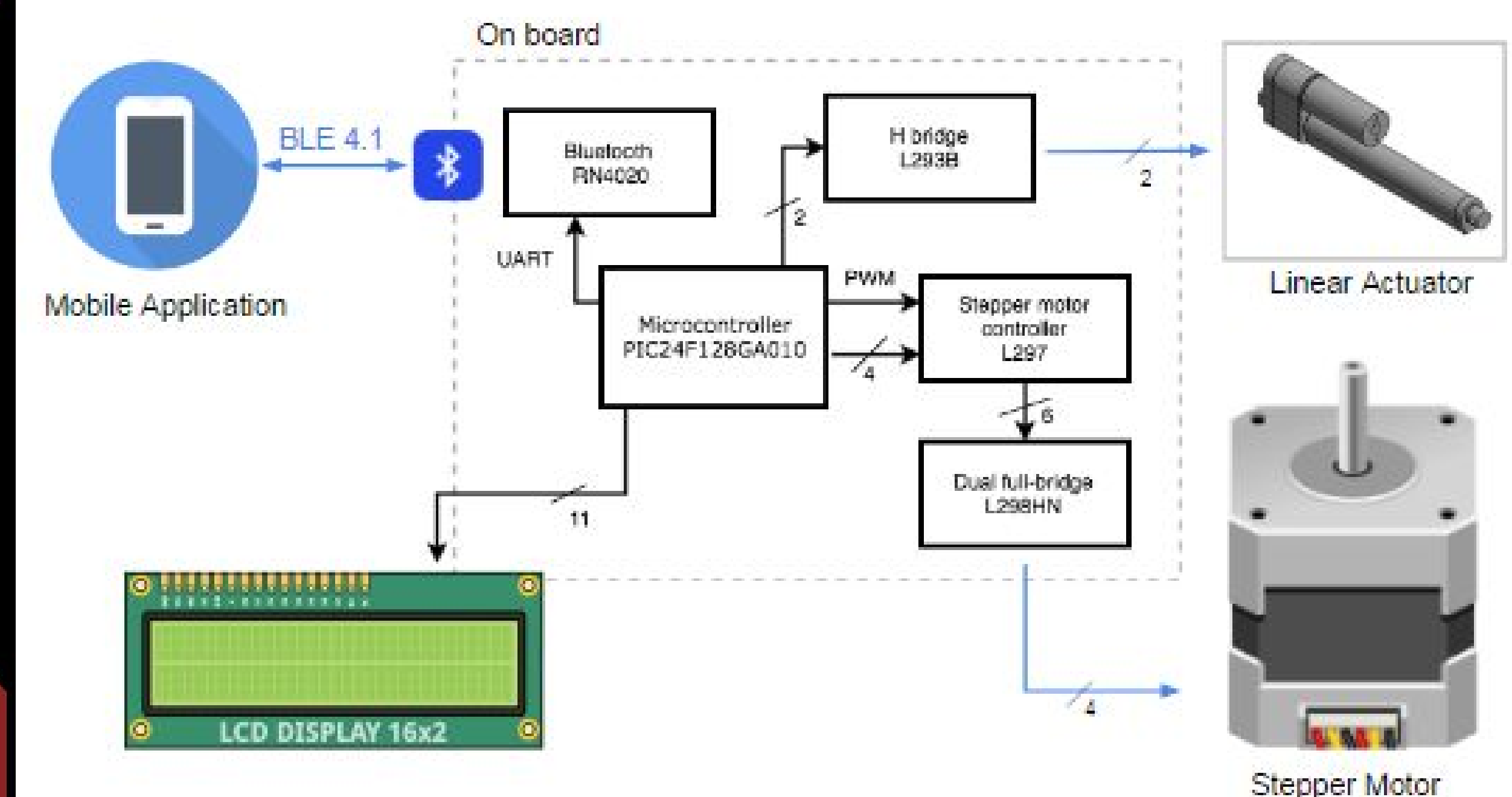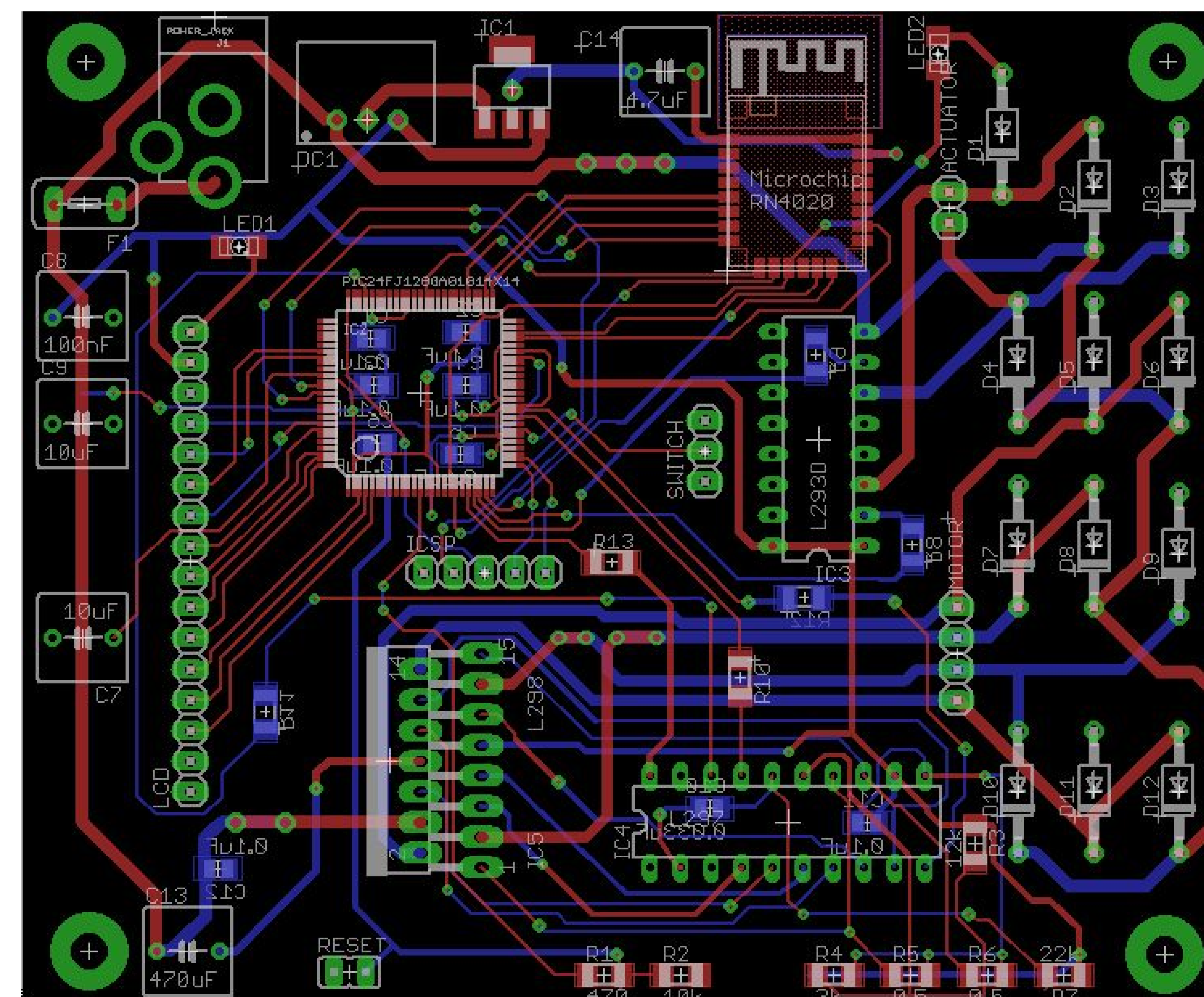**Stepper Motor: 57BYGH420-2**
Light Duty Linear Actuator
Peripherals used:
UART: Bluetooth RN4020
PWM : Stepper Motor Driver
SPI: LCD display

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