*// include the library code:* **#include <LiquidCrystal.h>** **#define MOTOR\_PIN 10** **#define LED\_PIN 12** **#define LCD\_RS\_PIN 13** **#define LCD\_EN\_PIN 11** **#define LCD\_D4\_PIN 5** **#define LCD\_D5\_PIN 4** **#define LCD\_D6\_PIN 3** **#define LCD\_D7\_PIN 2** **#define FAN\_MAX\_LEVEL 5** **#define LIGHT\_MAX\_LEVEL 5** **int** currentFanLevel = 0; **int** currentLightLevel = 0; *// initialize the library by associating any needed LCD interface pin* *// with the arduino pin number it is connected to* LiquidCrystal **lcd**(LCD\_RS\_PIN, LCD\_EN\_PIN, LCD\_D4\_PIN, LCD\_D5\_PIN, LCD\_D6\_PIN, LCD\_D7\_PIN); **void** **setup**() { pinMode(MOTOR\_PIN, OUTPUT); pinMode(LED\_PIN, OUTPUT); Serial.begin(9600); lcd.begin(16, 2); lcd.print("Jamiexu Welcome"); lcd.setCursor(0, 1); lcd.print("Loading..."); delay(1000); lcd.clear(); lcd.setCursor(0, 0); lcd.print("Speed: OFF"); lcd.setCursor(0, 1); lcd.print("Brightness: OFF"); } **void** **loop**() { **uint8\_t** data[4]; *// put your main code here, to run repeatedly:* **if** (Serial.available() > 0) { Serial.readBytes(data, 4); **if** (data[0] == 0xAF && data[3] == 0xFA) { Serial.println("Rcv"); **if** (data[1] == 0x0F) { Serial.println("Adjust fan..."); currentFanLevel = data[2] > FAN\_MAX\_LEVEL ? FAN\_MAX\_LEVEL : data[2]; } **else** **if** (data[1] == 0x0E) { Serial.println("Adjust light..."); currentLightLevel = data[2] > LIGHT\_MAX\_LEVEL ? LIGHT\_MAX\_LEVEL : data[2]; } } } lcd.setCursor(7, 0); **if** (currentFanLevel == 0) { lcd.print("OFF"); } **else** { lcd.print(currentFanLevel); lcd.print("L "); } lcd.setCursor(12, 1); **if** (currentLightLevel == 0) { lcd.print("OFF"); } **else** { lcd.print((**int**)currentLightLevel); lcd.print("L "); } analogWrite(MOTOR\_PIN, map(currentFanLevel, 0, FAN\_MAX\_LEVEL, 0, 255)); analogWrite(LED\_PIN, map(currentLightLevel, 0, LIGHT\_MAX\_LEVEL, 0, 255)); }