

Minutes 2/14

- Follow up on ESP programming
 - He ordered ESP modules with WROOM chip and programmable
 - Three choices for programming environment
 - Add boards to Arduino IDE
 - Board manager, ESP32
 - Can do almost everything in that environment
 - Random nerd tutorials
 - Didn't go over the other choices
 - USB to UART is on that device, for dev boards don't have to worry about it
 - Plug the module into USB and program through Arduino
 - When we design our own board, bring off six pins, Tx, Rx, power, ground, reset, io0 (pull to ground when programming)
 - Should be a table in datasheet to show how to program
 - Pull up somewhere on board for enable
 - Don't need the chip
 - Depending on size of program, could do over the air updates
 - He has a USB to UART module that we can use
- Temperature sensors
 - DS1631, I2C
 - Should we demonstrate I2C sensor or SPI device
 - Demonstrate something that is SPI
 - SPI devices: LORA transmitters, memories, serial EPROMs (?), gyroscope accelerometer type sensors
 - Many I2C sensors can change a bit in the address, frequently a pin that you can tie high or low to change the address
 - Probably isn't easy to do in the Arduino environment
 - Supposedly there are two I2Cs on the ESP32
 - Address usually depends on what kind of device it
- Team website
 - Jk no questions
 - There are online sites that can program HTML for you
 - Dreamweaver
 - There are free HTML editors online
- Delegating roles
 - Jack in charge of online stuff, server API
 - Ethan doing initial board design
 - Dan/Thomas working on Arduino IDE programming
 - Can do it on computers in the lab
 - Can use platform IO
 - More like a real development environment
 - Can use Arduino frameworks and files and stuff
 - Could be better for bigger programs
 - There is an SDK from espressif

- Raspberry Pi stuff
 - Have done raspberry pi that used ethernet connection that everyone could access
 - Honestly Jack and prof are speaking a language that I don't understand right now
- Random ending stuff
 - Sparkfun has getting started page for all the Arduino IDE stuff
 - Can work with ESP32 stuff to program