# Michael Currier Project – Detailed view (v1)

By Bill Weis

**Review of the Requirements for this project and the high-level design of the solution**

Requirements:

1. Be able to voice control his bed (Invacare model 50001VC with 1115290 pendant).
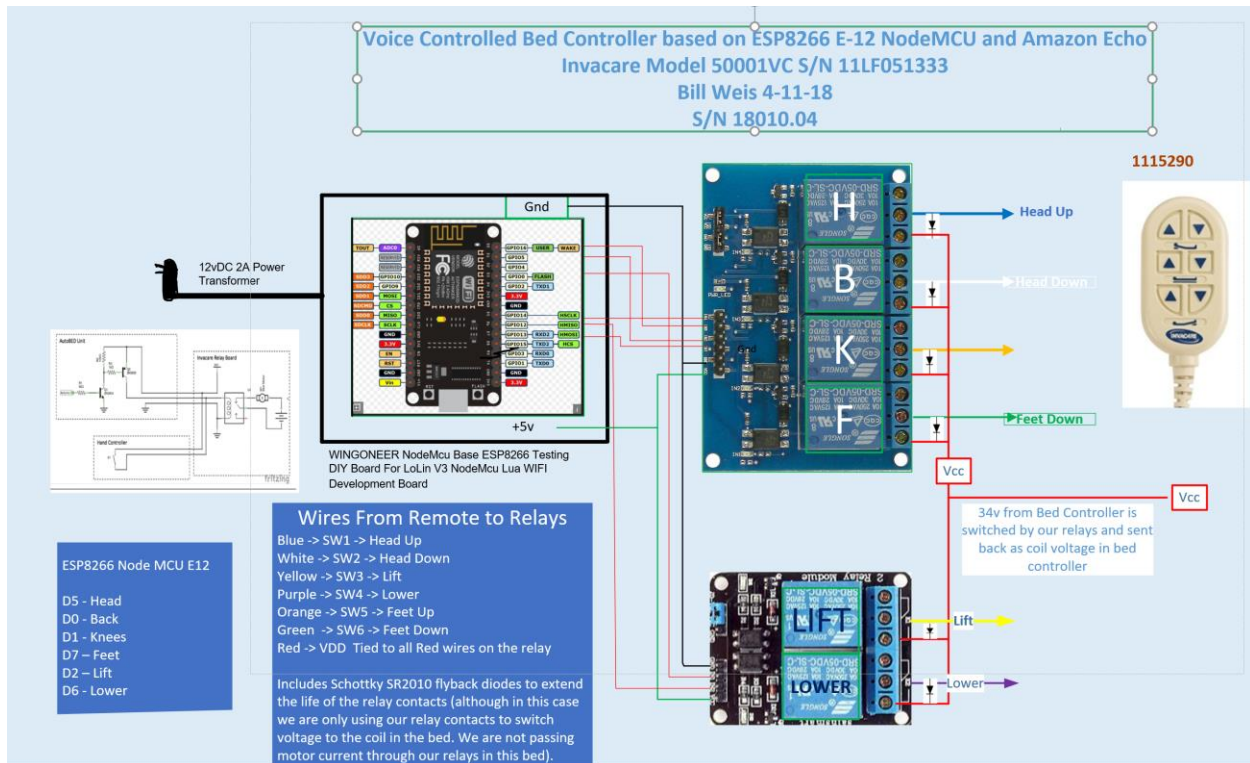

Solution – High Level:

1. Designed a microcontroller based Voice Activated solution that provided the desired functions of Head Up, Head Down, Feet Up, Feet Down, Raise Bed, Lower Bed.


**Details of the Solution**

**1 – Voice Control his bed –** The bed is an Invacare model 50001VC with a 1115290 pendant that is direct wired to the bed. The approach was to have an ESP8266 microcontroller drive 6 relays which replaced the 1115290 pendant. The 6 functions of Head Up, Head Down, Feet Up, Feet Down, Lift Bed, and Lower Bed were each controlled by one of the 6 relays.

Once the voice activated controller was connected to the bed and working, he has the option of configuring Routines that replace the voice commands that ship with the bed controller with voice commands that are more natural to speak.

The functional engineering drawing shows the connections between the microcontroller and the relays, as well as the relays to the bed.

Voice Controlled Bed Controller based on ESP8266 E-12 NodeMCU and Amazon Echo
Invacare Model 50001VC S/N 11LF051333
Bill Weis 4-11-18
S/N 18010.04

## Resources

[Amazon Echo](#)

[Alexa Support](#)  (Contact Support via the Amazon Alexa app - can have them call your number)

[Google Home getting started](#)

[Google Home Help Forum](#)

[Google Home Support](#)    Phone number for Google Home hardware support = 855-971-9121 (24/7 days a week)

[Logitech Harmony Knowledge Base](#)

[Logitech Harmony Support](#) Phone # for Support = 866-601-5644 (M-F 8am to 6pm PST)

[Lifx](#)

[Wemo Support](#)  Phone number for Support = 1-844-745-wemo (9366)