

Howard Eitzen – Primary Lateral Sclerosis
Detailed view by Bill Weis

1. Be able to voice control his Basic American bed with Linak CB06 Control box

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.

Details of the Solution

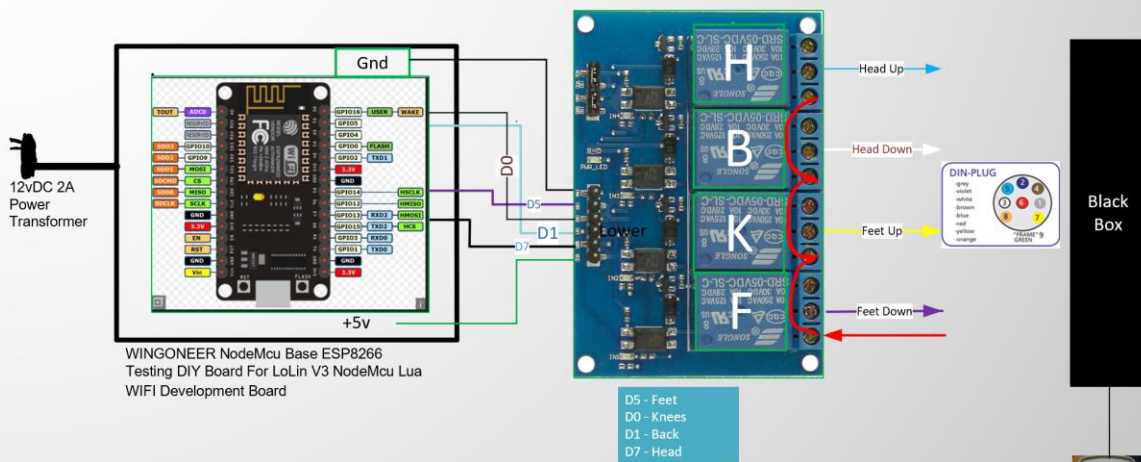
1 – Voice Control his bed – Howard has a full electric Basic American bed Zenith Series 9000 which has a LINAK CB06 control box. This bed is a 6-function bed which includes Head Up, Head Down, Foot Up, Foot Down, Bed Up and Bed Down. For safety reasons, Bed Up and Bed Down require use of the hand held pendant. Bed Up and Bed Down is a feature that is only used by a caregiver anyhow, and the caregiver can continue to perform Bed Up and Bed Down as they always have. All 6 functions are still controllable via the pendant as well as the control panel at the foot of the bed which also has the ability to control Trendelenburg/Reverse Trendelenburg positions.

The bed controller supports voice commands that are issued through Alexa as well as through the Google Mini, however the facility's wifi network would not allow the Google mini installation to complete, so Howard will only be using Alexa to control the bed.

Through collaboration with LINAK's Application Engineering team, and our ability to integrate with Basic American's versatile LINAK actuation system, we were able to provide Howard with the ability to move the head of the bed up/down for durations of 3,4,5 and 8 seconds. He can also move feet up/down for 3,4 or 5 second increments.

Here is a Visio diagram of the solution.

Voice Controlled Bed Controller for HowardE. Basic American Slide Wide Full Electric bed Zenith Series 9000 model ZZ99674 (Linak CB06-U092-03) Manual pendant for Lift and Lower
Bill Weis 3-6-2020
S/N 20069.02



For safety reasons, lift and lower are **not** provided via voice commands, but on full electric Basic American beds, all 6 functions are available through the provided pendant. There is also a control panel at the foot of the bed. Voice commands are provided for head and feet of the bed. Blue is head up, white is head down, yellow is feet up, and violet is feet down.

The "Black Box" is made up of some Linak Parts.
DJB0003001-1024
MJB0004000-1023
8 Pin DIN 001571-B
2' RJ50 control cable 0964461-0500-B

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)