

# GeorgeH Project – Detailed view (v1)

By Bill Weis

## *GeorgeH = Multiple Sclerosis*

### Requirements:

1. Be able to voice control his Invacare bed
2. Be able to voice control his TV

### Solution – High Level:

1. Designed a voice activated bed controller which gave George the ability to control all desired functions of his adjustable bed. He can control the bed using Google
2. Installed a Roku device on the living room TV so George can have control over selecting his entertainment with the help of the Quick Remote app to navigate the Roku screen.

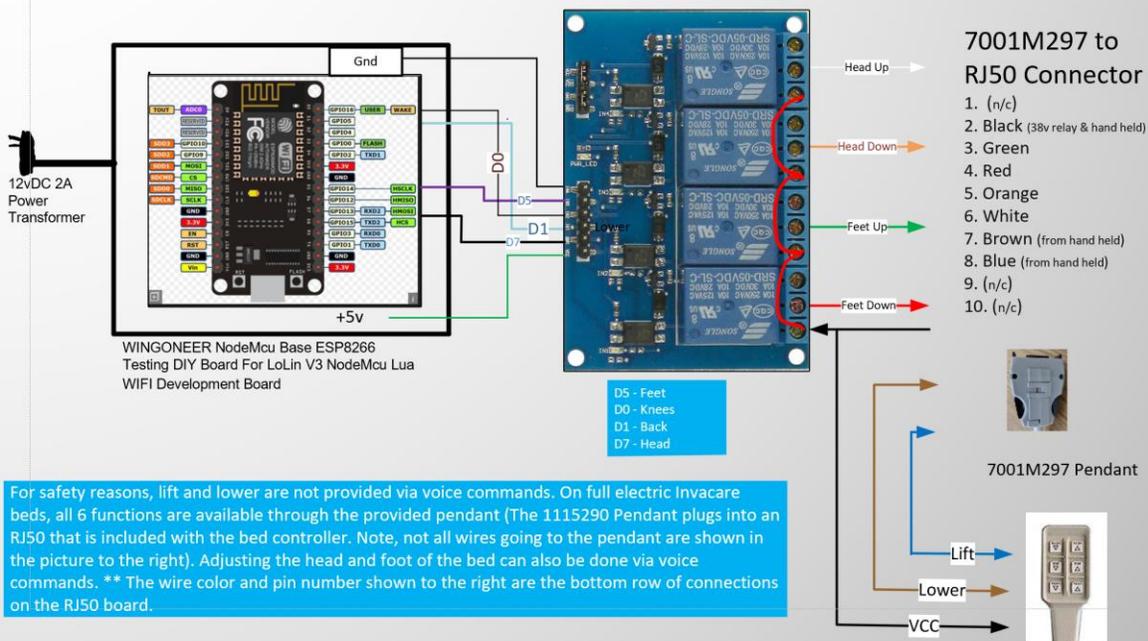
### Details of the Solution

**1 – Voice Control his bed** – George has a 6 function Invacare bed with a hard wired remote. He wanted the 4 buttons (head up, head down, legs up, legs down) on the remote to be voice activated. With our Invacare Bed controller design, we provide a connector to plug in a hand-held controller, so the bed can be controlled by voice as well as manually. For safety reasons, we did not provide voice commands for lift and lower bed.

The voice activated bed controller uses mechanical relays

**Here is a Visio diagram of the solution.**

**Voice Controlled Bed Controller for GeorgeH, mechanical relays to drive the  
Invacare Full Electric bed, manual control for Lift and Lower  
The pendant has the 9 pin connector 7001M297/G  
Bill Weis 11-4-2019  
S/N 19048.09**



For safety reasons, lift and lower are not provided via voice commands. On full electric Invacare beds, all 6 functions are available through the provided pendant (The 1115290 Pendant plugs into an RJ50 that is included with the bed controller. Note, not all wires going to the pendant are shown in the picture to the right). Adjusting the head and foot of the bed can also be done via voice commands. \*\* The wire color and pin number shown to the right are the bottom row of connections on the RJ50 board.

**2. Use voice commands to control the TV** – We installed a Roku device on the HDMI port of the living room TV so George can control his entertainment. By adding Quick Remote to an android device, George and navigate the Roku screen with voice commands.

**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)

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

inside the bed controller box. The drawing on the following page shows the voice activated bed controller, solid state relays and the remote.