Doron Project – Detailed view (v2)
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Doron – ALS

Requirements:
1. Be able to voice control his Invacare bed
2. Be able to use voice for placing and answering phone calls and have his phone number on receiving caller ID
3. Be able to voice control the lamp
4. Be able to voice control two Cable TVs/other apps
5. Be able to voice control the Amazon Camera

Solution – High Level:
1. Designed a voice activated bed controller which gave Doron the ability to control all desired functions of his adjustable bed. He can control the bed using Alexa and Google
2. Installed an Amazon Echo Connect so Doron can make and answer incoming phone calls
3. Installed in lamp a Philips Hue light bulb which is voice controlled
4. Installed two Amazon Fire TV Cubes so Doron can voice control his TV/entertainment.
5. Installed a WeMo Smart Mini switch so Doron can voice control his Amazon camera
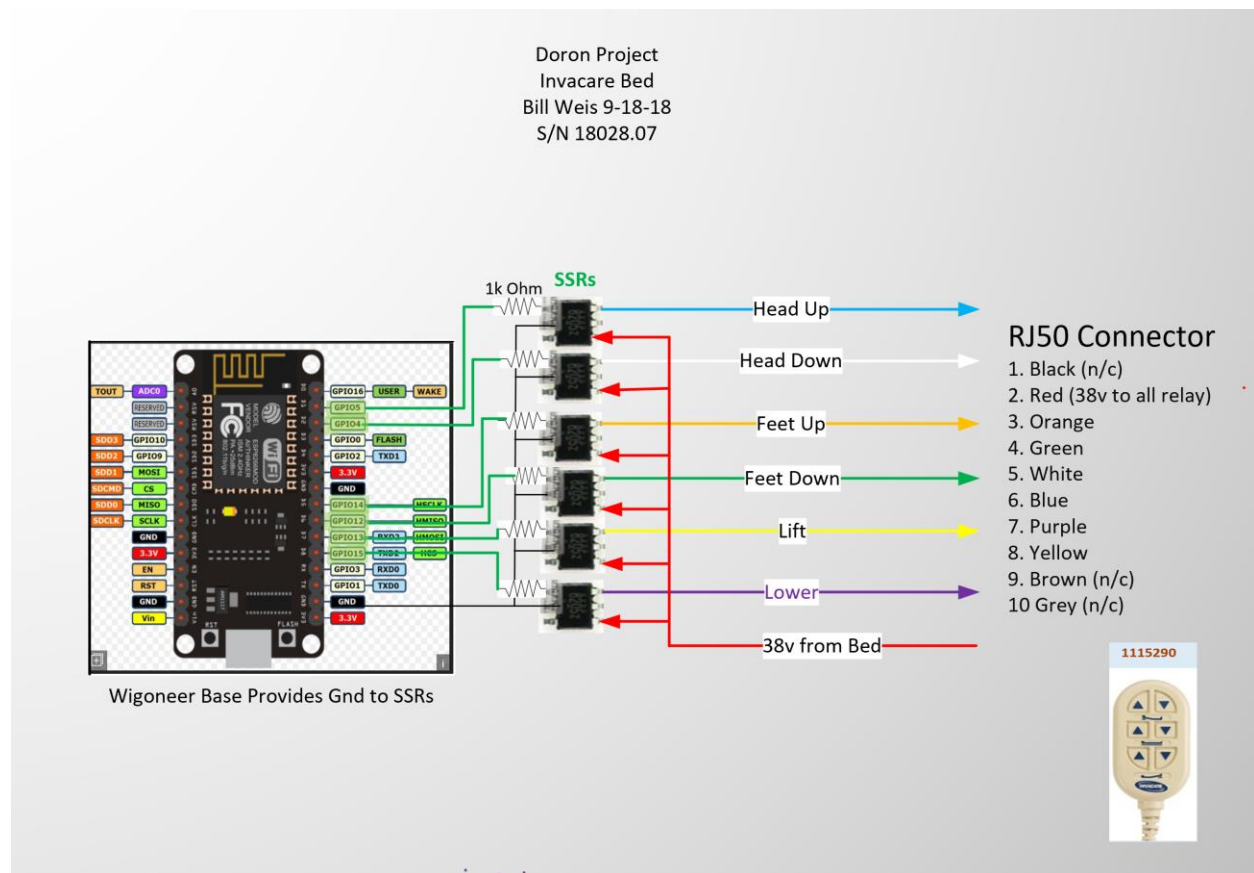
Details of the Solution

1 – Voice Control his bed – Doron 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 solid state relays.

Doron's bed can be controlled by both an Amazon Echo and a Google Mini for added redundancy.

Here is a Visio diagram of the solution.

2. Answer the phone and place phone calls all by voice – We provided an Amazon Echo Connect which provides the capability for Doron to answer incoming phone calls over the landline by using his voice. Doron can also place phone calls by voice.

3. Doron's cousin installed a voice-controlled Philips Hue light bulb in lamp – To give Doron the ability to use voice commands to control lighting during the night, Doron's cousin installed a voice-controlled Philips Hue light bulb in his lamp.

4. Doron wanted to be able to voice control the TVs in his bedroom and den – We provided and installed two Amazon Fire TV Cubes and configured it so Doron could voice control his TVs for Cable and other apps.

5. Doron wanted to be able to turn on and off his Amazon camera by voice – We provided and installed a WeMo Smart Mini plug so Doron could voice control power to his Amazon camera.

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.