

# Scott Catron Project – Detailed view

By Bill Weis

## *Scott Catron – Duchenne Muscular Dystrophy*

Requirements:

1. Be able to voice control his Drive bed
2. Be able to voice control the ceiling fan lights
3. Be able to voice control his floor fan

Solution – High Level:

1. Designed a voice activated bed controller which gave Scott the ability to control all desired functions of his adjustable bed.
2. Installed 4 NiteBird (A19) Wi-Fi Smart LED Light Bulb, which are dimmable and can change colors.
3. Installed an Amazon smart plug so Scott can control the floor fan.

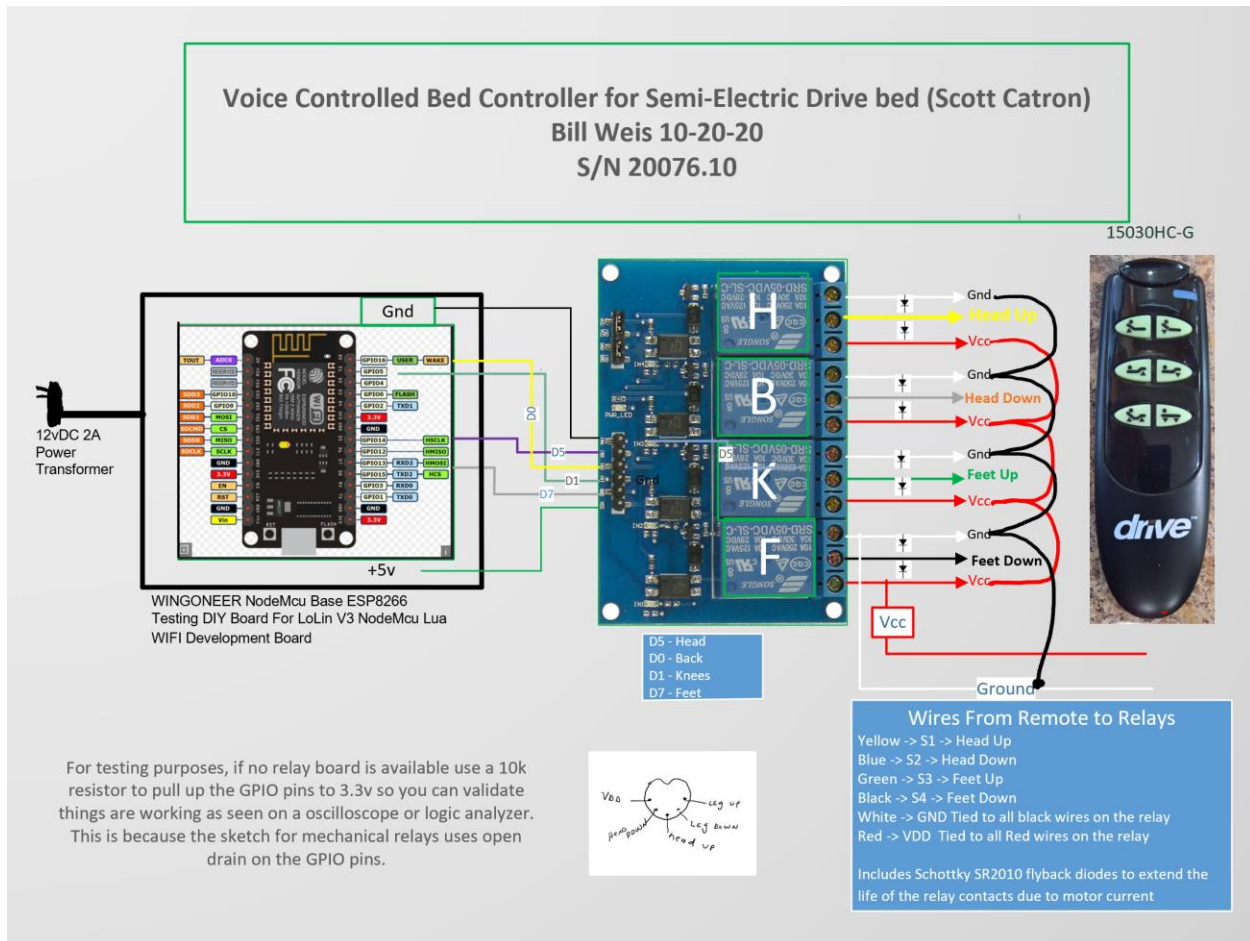
## **Details of the Solution**

**1 – Voice Control his bed** – Scott has a Drive Semi-Electric 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. The design of this bed control does not lend itself to being able to have a backup means of controlling the bed by hand in the event of internet downtime or other failures. This means that in cases where the bed cannot be controlled through the use of the voice activated bed controller for whatever reason, it will be necessary to unplug the bed controller and plug in the original handheld controller.

The voice activated bed controller uses mechanical relays with Schottky SR2010 flyback diodes offering protection to the contacts on those relays.

Scott'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.



**3. Turn on/off the ceiling fan lights in his room by voice** – We installed (4) NiteBird (A19) Wi-Fi Smart LED bulbs in the ceiling fan fixture enabling Scott to turn on/off/dim/change color through voice commands using Amazon Echo. The Lixf bulbs do not require a hub as each bulb can be directly accessed by the Amazon Echo.

**3. Be able to voice control his floor fan** – To give Scott the ability to use voice commands to control his future floor fan, we installed an Amazon Smart plug.

## **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)

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