

Chuck K. Project – Detailed view (v1)

By Bill Weis

Chuck K - ALS

Requirements:

1. Be able to voice control his Pride Vivalift! Tranquil PLR-935 lift chair
2. Be able to voice control ceiling lights in the kitchen
3. Be able to voice activate the lamp next to his recliner
4. Be able to use voice commands with his TV/Roku

Solution – High Level:

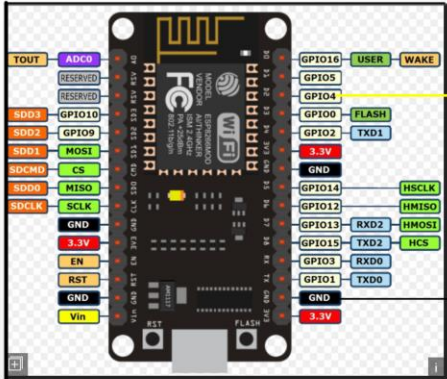
1. We designed a voice activated solution for his Pride recliner.
2. We provided Sunco BR30 bulbs for his recessed kitchen lights
3. We provided a WeMo smart mini plug so he could use voice commands to turn on and off the lamp next to his recliner.
4. We installed the Quick Remote app on his Google Pixel phone so he could use voice commands to navigate the Roku screens and select his entertainment.

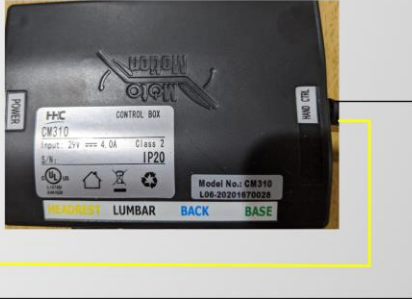
Details of the Solution

1 – Voice Control her recliner – Chuck has a Pride VivaLift! Tranquil PLR-935 lift chair and the impact of ALS has made it very difficult for him to use the hand controller. Since Chuck will spend a lot of time including sleeping in that chair, it is important that he is able to control the positioning of the chair as well as having the ability to control the comfort features like changing pressure in the lumbar and head pillows. These are features which are important to someone who spends a lot of time in the chair. At this time, Pride Mobility does not have an alternative solution for someone with Chuck's impairments to be able to control the chair, so we went ahead and designed a voice which gives him the ability to control all 10 functions that would normally have been performed using the remote. Our solution replaces the standard remote and should there be an internet outage it would be necessary for someone to plug in the original hand remote.


Here is a basic design of the controller we built for Chuck's lift chair

Chuck K Recliner Project
 Pride VivaLift Tranquility PLR935
 Hand Controller HSW310-VA
 S/N 20073.06






This is the 5 pin DIN male connector



The pinouts for the 5 pin DIN male connector are:

There is one linked connector - 5 pin DIN female. Click here for details.



Using a 15030HC-G harness

Pin 1 - Orange
 Pin 2 - Yellow
 Pin 3 - Green
 Pin 4 - Blue
 Pin 5 - Black

HSW310-VA Hand remote has 5 Pin male DIN Connector

Pin #	Purpose
1. Red	LEDs for each button on remote
2. Yellow	Pin 12 of PIC16F1828
3. Green	+5v
4. White	Ground
5. Blue	Pin 10 of PIC16F1828

For our solution, we only needed to connect our controller to the recliner using DIN connector pin 4 for a common ground and pin 5 so we can provide the digital signal to the chair. Our control box replaces the hand remote. The control box in the chair is a HHC Moto Motion CM310 L06-20201670028

2. Be able to voice control the kitchen recessed lights – We provided Chuck with 6 Sunco BR30 light bulbs which can be turned on and off, dimmed, and changed to an unlimited number of colors, all by voice. Here is a description of the bulbs as posted on Amazon - [Sunco Lighting 6 Pack WiFi LED Smart Bulb, BR30, 8W, Color Changing \(RGB & CCT\), Dimmable, 650 LM, Compatible with Amazon Alexa & Google Assistant - No Hub Required](#)

3. Be able to use voice to control the lamp next to his lift chair – Chuck has a lamp next to his lift chair he would like to be able to turn on and off using voice commands. We provided a Wemo smart mini switch to control the lamp.

4. Be able to use voice commands to control the TV/Roku – We recommended trying the Quick Remote app which runs on Android devices to help Chuck navigate the Roku menu and select his entertainment options. We provided a Google Pixel 3 phone which must be on all the time in order for the Quick Remote app to work.

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)

[Sunco Lighting](#)- Support: (844) 334-9938

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