

# Stan M. Project – Detailed view (v1)

By Bill Weis

## Requirements:

1. Be able to voice control his TV
2. Be able to voice control a lamp
3. Be able to voice control his bed (Invacare Full-Electric 1115290 pendant)

## Solution – High Level:

1. We provided an Amazon Fire TV Cube so Stan can control his TV by voice
2. We provided an Amazon Smart plug so Stan could control a lamp by voice
3. Installed a custom voice activated bed controller to allow Stan to control his full electric Invacare bed using voice commands.

**1. Be able to control his TV using Voice commands** – To help Stan with the need to control his TV using voice commands, we provided an Amazon Fire TV Cube.

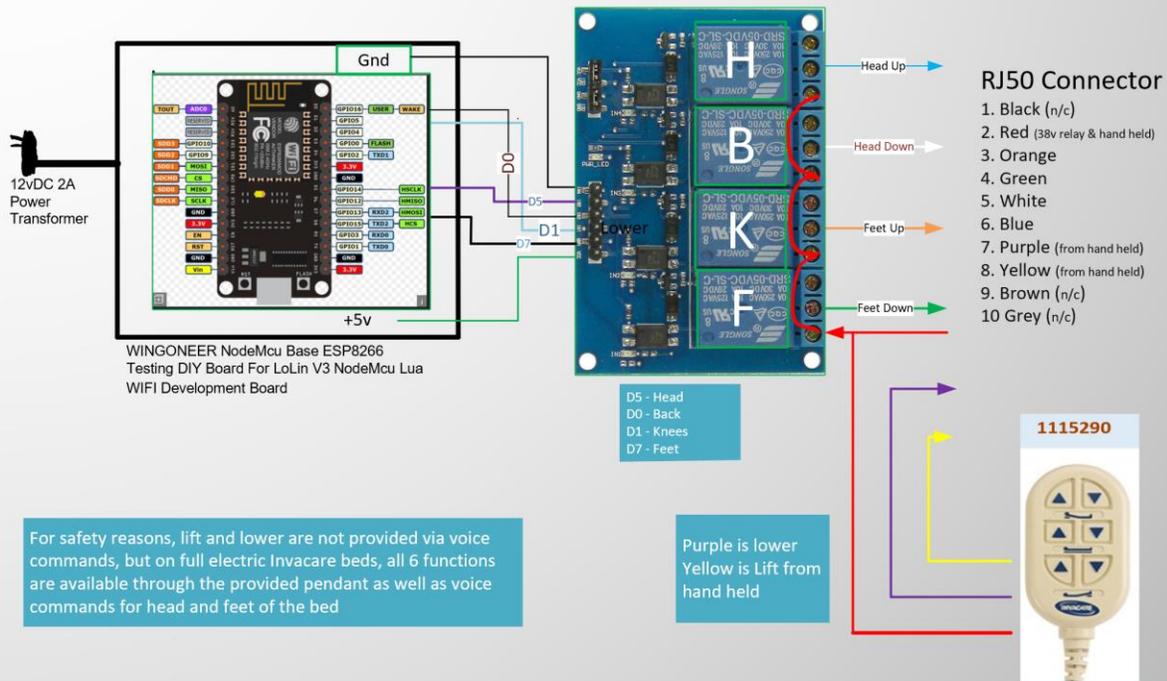
**2. Be able to control a lamp by voice** – We provided an Amazon Smart plug so Stan could control his lamp using voice commands.

**3. Be able to voice control his bed (Invacare Full-Electric 1115290 pendant)**

Stan has ALS which has left him with limited control over his hands. We designed a voice activated bed controller which will give Stan the ability to control his adjustable bed with a variety of commands. All commands run for a predetermined length of time and Stan can choose the command that best suits his needs. The head of the bed can be raised/lowered in 1,2,3,4,5 &6 second intervals. It will require multiple commands to go from a flat position to a full up sitting position, but this approach is done for safety reasons. The foot end of the bed can be raised/lowered in 3, 4 or 5 second intervals. A nice feature of the Invacare bed design allows for us to provide a dual control environment. Both voice-activated control as well as adjustments to the bed via the pendant are possible. This is handy in cases where WiFi might be disrupted or if a caregiver chooses to adjust the bed manually. Also note that for safety reasons, we do not provide a voice solution for the bed Hi Lo feature, so still having the ability to use a hand remote without the need to swap cables is very handy.

Here is a schematic of the bed controller design

**Voice Controlled Bed Controller for Stan M, mechanical relays to drive the  
Invacare Full Electric bed, manual remote for Lift and Lower  
Bill Weis 9-21-2022  
S/N 21101.06**



## Resources

[Amazon Echo](#)

Amazon Fire TV Cube support

[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)