"Walter" – Spinal Injury
Detailed View by Bill Weis

Requirements:
1. Be able to voice control his semi-electric bed that has HR-3 remote
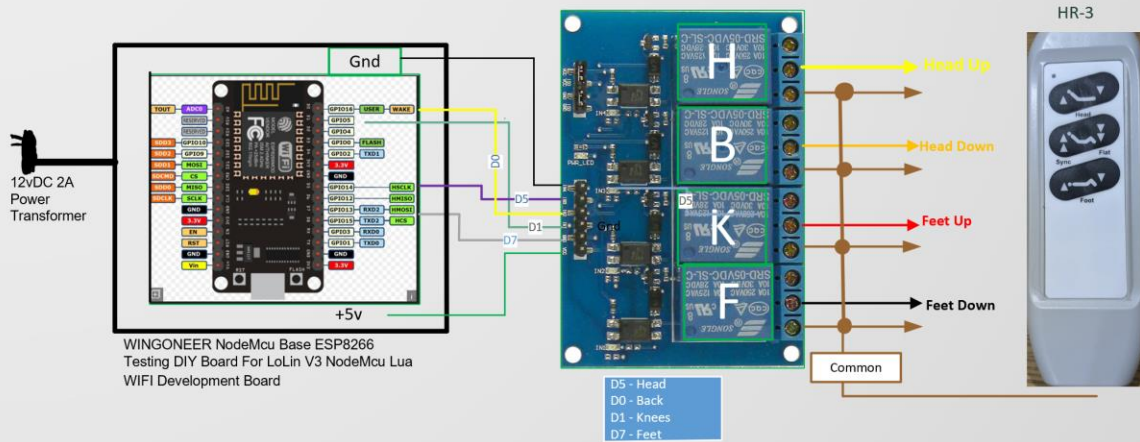
Solution – High Level:
1. We designed a voice activated bed controller for his bed
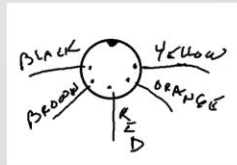
Details of the Solution

1 – Be able to voice control his bed – "Walter" has a semi-electric Customatic bed with a HR-3 hand remote. We provided "Walter" with the ability to raise/lower the head and foot ends of the bed using voice commands that run for specific durations. The solution is based on an ESP8266 Microcontroller and mechanical relays. We added a Y-Cable so the bed can be controlled by both voice as well as the HR-3 hand remote.

Here is a Visio diagram of the solution.

Voice Controlled Bed Controller for Older Customatic base with HR-3 style pendant for "Walter"
Bill Weis 5-26-2022
S/N 22106.02

HR-3

Gnd

12vDC 2A
Power
Transformer

Head Up

Head Down

Feet Up

Feet Down

Common

+5v

WINGONEER NodeMcu Base ESP8266
Testing DIY Board For LoLin V3 NodeMcu Lua
WIFI Development Board

D5 - Head
D0 - Back
D1 - Knees
D7 - Feet

Eventhough this pendant connection uses a 5 Pin DIN, the connections are simple contact meaning it is possible to use a Y-Cable so they can have manual and voice control at the same time.

BLACK   YELLOW
BROWN   ORANGE
RED

Wires From Remote to Relays
Yellow -> Head Up
Orange -> Head Down
Red -> Feet Up
Black -> Feet Down
Brown -> Common

Resources
Amazon Fire TV Cube support number - **888-280-4331**
Fire TV Cube (amazonforum.com)
Amazon fire tv support Fire TV: Amazon Digital and Device Forum (amazonforum.com)