Sloane Project – Detailed view (v2)

By Bill Weis

Review of the Requirements for this project and the high-level design of the solution

Requirements:

1. Be able to voice control her bed (Leggett and Platt s-Cape with Raven industries control/remote KSMBR20543T).
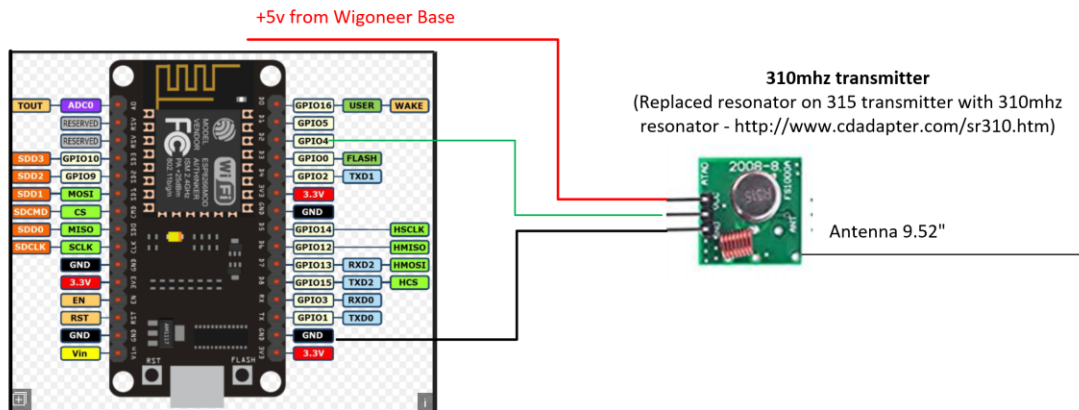
Solution – High Level:

1. Designed a microcontroller-based Voice Activated solution that provided the desired functions of Head Up, Head Down, Feet Up, Feet Down, Flat and MR.

Details of the Solution

1 – Voice Control her bed – Leggett and Platt s-Cape with Raven industries control/remote KSMBR20543T which operates at 310mhz. I was able to capture the pulse timings for the remote and once I had the timings for the 6 desired buttons from the remote, it was time to write the sketch for the ESP8266 microcontroller. Then finally, I had to select a 315mhz transmitter, and to meet the requirements of sending 310mhz I replaced the resonator on the 315mhz transmitting board with a 310mhz resonator. The resonator was purchased from http://www.cdadapter.com/sr310.htm). A 9.52" antenna was added to the transmitter, tuned for ¼ wave length for this frequency.

Sloane's brother Matt then went on to define the "Alexa Routines" so the commands Sloane would then give to Alexa were natural sounding.

Sloane Project
Raven Industries KSMBR20543T Remote
310mhz (Leggett and Platt s-Cape)
S/N 18011.05

+5v from Wigoneer Base

310mhz transmitter
(Replaced resonator on 315 transmitter with 310mhz
resonator - http://www.cdadapter.com/sr310.htm)

Antenna 9.52"

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)