James Project – Detailed view (v1)
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Requirements:
1. Be able to voice control his TV
2. Be able to use voice commands to call the nurse

Solution – High Level:
1. We provided an Amazon Fire TV Cube so James could control his TV by using voice commands
2. We designed a solution which allows James to use voice commands to activate the Nurse call feature

Details of the Solution

1 – Be able to voice control his TV – We provided an Amazon Fire TV Cube for James to control his TV using voice

2 - Voice Controlled Nurse Call Bell – James was having difficulty working the nurse call button due to his physical limitations. We designed a solution that uses an Amazon Smart Plug and a custom control unit as shown in the diagram below.

Here is a Visio diagram of the solution.

Nurse Call Button
S/N CB10

120v AC

12v DC
Ground

Jumper set to H

Wires From Power Supply
Red -> +12v to "+DC" terminal
Black -> Ground wire to "-DC" terminal
Jumper wire connects "+DC" terminal to "In" terminal

Power supply plugs into Smart Switch
Amazon Smart Switch controlled by custom routine
Routine turn on Smart switch for 5 sec, then turns off

Wires to Wall Connector - Phono
Red wire to relay Common terminal
Brown wire to Relay Normally Open terminal

Parts Needed

12v Power Supply - Sansun (Amazon) $5.18
12v Relay board - (Amazon) $1.50
Nurse call button – (Amazon) $18.95
Awclub Waterproof Dustproof ABS Plastic
Junction Box $6.79