Baby Einstein Design Document

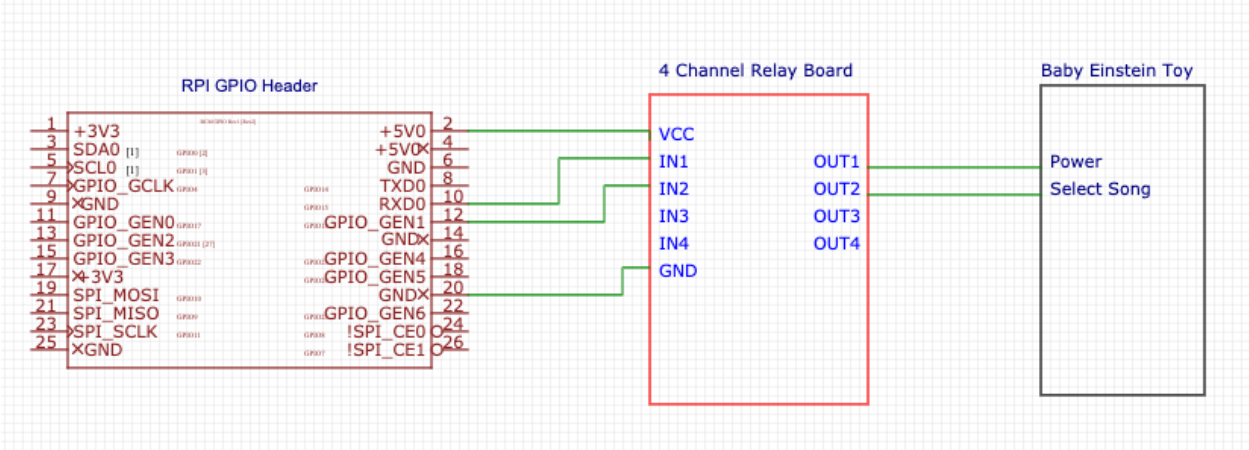
Capabilities:

- Toy is able to control its on/off state through a switch
- Toy is able to cycle through songs through a switch

Required Items for Setup:

- Raspberry Pi
- 2+ channel relay board (https://www.amazon.com/SainSmart-101-70-101-4-Channel-Relay-Module/dp/B0057OC5O8)
- Baby Einstein Toy (https://www.adaptivetechsolutions.com/pd-baby-einstein-musical-switch-adapted-toy.cfm)
- Female to Female wires

Hardware Setup:



The 4 channel relay board requires a 5V connection from the Raspberry Pi. IN1 and IN2 both receive a digital output from a program located on the Raspberry Pi. The digital signal will then cause the appropriate relay to close the circuit(i.e. the switch connected from the toy). For example, if GPIO 18(physical pin 12) is given digital high signal, the relay will close the switch and allow power to circulate within the toy.

Limitations:

- The toy was constructed in a way where the user must press a certain number of times for a certain song. Thus, there is no way to jump to a specific song immediately.