

Pitch Revision: TVMaestro

Concern: Please clarify the manner in which the switching will occur.

The channel switching can occur in ad-mode or in time-table mode.

- **Ad-mode:** The microcontroller will be configured to receive audio/video data from a roku or a TV receiver via an HDMI cable. A neural network will be trained using TensorFlow to analyze TV channel data to classify certain audio(or possibly video) as an advertisement. The user will create a priority list of channels and when the neural network indicates that an advertisement has begun, the channel will switch to next channel on priority list. If all the channels are on ads, go to top priority and ignore the fact that top channel is on ads.
- **Time-table mode:** In this mode the user can set a schedule of channels/programs to run at certain times. The TVMaestro will switch channels at these times.

To reiterate, the TVMaestro will first calibrate the user's remote and collect all possible infrared signals of the remote using an infrared sensor. An infrared emitter will be used to switch channels on the TV. If I wanted to calibrate my tv remote, I would press all the buttons on the remote(power, channel number inputs, up, down, select, etc.) and store this in the TVMaestro, and then when I tell it to switch channels it will send channel number sequence of infrared signals. If navigating a roku the user could set up button sequences that lead to certain programs. For example, the TVMaestro could be configured to turn on a roku tv, and open Netflix at 10PM.