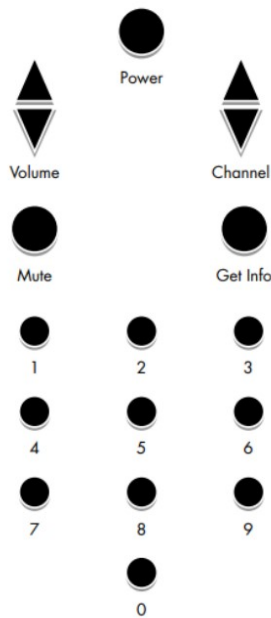# Modelling a TV Remote

From this, we can determine that to keep track of its state, a TV class would have to maintain the following data:

- Power state (on or off)
- Mute state (is it muted?)
- List of channels available
- Current channel setting
- Current volume setting
- Range of volume levels available

And the actions that the TV must provide include:

- Turn the power on and off
- Raise and lower the volume
- Change the channel up and down
- Mute and unmute the sound
- Get information about the current settings
- Go to a specified channel

NOTE:
```
self.channelList = [2 , 4, 5, 7, 9, 11, 20, 36, 44, 54, 65]
START CHANNEL = 2 (or index = 0)
START VOLUME = 5 // MIN VOLUME = 0 // MAX_VOLUME = 10
```

TEST CODE:

```python
# Main code
oTV = TV()   # create the TV object

# Turn the TV on and show the status
oTV.power()
oTV.showInfo()

# Change the channel up twice, raise the volume twice, show status
oTV.channelUp()
oTV.channelUp()
oTV.volumeUp()
oTV.volumeUp()
oTV.showInfo()

# Turn the TV off, show status, turn the TV on, show status
oTV.power()
oTV.showInfo()
oTV.power()
oTV.showInfo()

# Lower the volume, mute the sound, show status
oTV.volumeDown()
oTV.mute()
oTV.showInfo()

# Change the channel to 11, mute the sound, show status
oTV.setChannel(11)
oTV.mute()
oTV.showInfo()
```

SUGGESTED OUTPUT:

```
TV Status:
    TV is: On
    Channel is: 2
    Volume is: 5

TV Status:
    TV is: On
    Channel is: 5
    Volume is: 7

TV Status:
    TV is: Off

TV Status:
    TV is: On
    Channel is: 5
    Volume is: 7

TV Status:
    TV is: On
    Channel is: 5
    Volume is: 6 (sound is muted)

TV Status:
    TV is: On
    Channel is: 11
    Volume is: 6
```