How to use the Cedrus response pad in Psychopy experiments

The Cedrus response pad is designed to allow eight fingers to rest comfortably and simultaneously on the keys. There are also four colored tops so colors can be put according to the different roles of the keys.

Connections: The Cedrus response pad is connected to the computer via USB connection.

Use with Psychopy: The Cedrus response pad has code in the pyxid package which can be downloaded and imported into PsychoPy. Then it appears in the GUI under "Responses" and can be added by clicking on it (it appears as "Cedrus ButtonBox"). However, when using the Cedrus response pad more than once in the whole experiment, there are problems in the way PsychoPy generates the code and it will not work unless some changes be made (PsychoPy automatically generate a unique name for each button box and needs to edit the code so that all names will be identical. In this case there is no way back to PsychoPy builder).

Instead of adding a "Cedrus button box" in the second (or more) time in the experiment, a "Code" should be added, and in the Code properties, the following lines should be added in the following tabs:

(Assuming the first button box was added via the GUI and is named "buttonBox" (this is the default name)

Begin Routine
```
        resp=[]
        respRT=[]
        buttonBox.keys = []
        buttonBox.rt = []
        buttonBox.clock.reset()
        buttonBox.status = STARTED
```
Each Frame
```
        comp_time=datetime.datetime.now()
        expInfo['Time']=comp_time

        if buttonBox.status == STARTED:
           # check for key presses
           buttonBox.poll_for_response()
           while len(buttonBox.response_queue):
              evt = buttonBox.get_next_response()
              if evt['key'] not in [2,5]:   # should write in brackets the keys that are interesting
                 continue #we don't care about this key
              if evt['pressed']: #could be extended to examine releases too?
                 resp.append(evt['key'])
                 respRT.append(buttonBox.clock.getTime())
              buttonBox.poll_for_response()

        if len(resp) > 0:  # at least one key was pressed
           if buttonBox.keys == []:  # then this was the first keypress
```

```
            buttonBox.keys = resp[0]  # just the first key pressed
            buttonBox.rt = respRT[0]
```
End Routine
```
        buttonBox.clear_response_queue()
        RoutineName.addData('Var_resp',buttonBox.keys)
        RoutineName.addData('Var_respRT', respRT)
```


Important:

The keys in the Cedrus response pad are numbered from 0-7 such that 0 is the leftmost key and 7 is the rightmost key: