# emfcamp/badge-2024 Hexpansion EEPROM Recovery

If you have issues with a HexDrive, or for that matter any hexpansion fitted with an EEPROM, e.g. a software incompatibility with a particular badge software version, you can reset the EEPROM back to blank as follows:

1. Plug in the hexpansion to Slot 1 (will work with any slot but you have to change the "1" below to the slot number.
2. Connect your favourite Terminal program to the COM port presented by the Badge over USB.
3. Press "Ctrl" & "C" simultaneously. *i.e.* "Ctrl-C"
4. You should now be presented with a prompt ">>>" which is called the python REPL. At this type in the following lines (the HexDrive EEPROM is 8kbytes so requires 16 bit addressing, hence the `addrsize=16` other hexpansions may use smaller EEPROMS where this is not required):

   ```
   from machine import I2C
   i = I2C(1)
   i.writeto_mem(0x50, 0, bytes([0xFF]*8192), addrsize=16)
   ```

5. As long as there is no Traceback then this worked. But you can check by reading back the EEPROM contents with:

   ```
   i.readfrom_mem(0x50,0,32,addrsize=16)
   ```

   You should get a response which confirms that the first 32 bytes have been reset back to 0xFF:

   ```
   b'\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xf
   f\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff\xff'
   ```