

```
1 #include "BBB.h"
2
3 namespace Hardware
4 {
5     /*! Constructor*/
6     BBB::BBB()
7     {
8         threadRunning = false;
9         callbackFunction = NULL;
10        debounceTime = 0;
11        thread = (pthread_t)NULL;
12    }
13
14    /*! De-constructor*/
15    BBB::~BBB() { }
16
17    /*! Reads the first line from a file
18     \param path constant string pointing towards the file
19     \returns this first line
20     */
21    string BBB::Read(const string &path)
22    {
23        ifstream fs;
24        fs.open(path.c_str());
25        if (!fs.is_open()) { throw Exception::GPIOReadException(("Can't open: " + path).c_str()); }
26        string input;
27        getline(fs, input);
28        fs.close();
29        return input;
30    }
31
32    /*! Writes a value to a file
33     \param path a constant string pointing towards the file
34     \param value a constant string which should be written in the file
35     */
36    void BBB::Write(const string &path, const string &value)
37    {
38        ofstream fs;
39        fs.open(path.c_str());
40        if (!fs.is_open()){ throw Exception::GPIOReadException(("Can't open: " + path).c_str()); }
41        fs << value;
```

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42     fs.close();
43 }
44
45  /*! Checks if a directory exist
46  \returns true if the directory exists and false if not
47  */
48  bool BBB::DirectoryExist(const string &path)
49  {
50      struct stat st;
51      if (stat((char *)path.c_str(), &st) != 0) { return false; }
52      return true;
53  }
54
55  /*! Checks if a cape is loaded in the file /sys/devices/bone_capemgr.9/slots
56  \param shield a const search string which is a (part) of the shield name
57  \return true if the search string is found otherwise false
58  */
59  bool BBB::CapeLoaded(const string &shield)
60  {
61      bool shieldFound = false;
62
63      ifstream fs;
64      fs.open(SLOTS);
65      if (!fs.is_open()) { throw Exception::GPIOReadException("Can't open SLOTS"); }
66
67      string line;
68      while (getline(fs, line))
69      {
70          if (line.find(shield) != string::npos) { shieldFound = true; break; }
71      }
72      fs.close();
73      return shieldFound;
74  }
75 }
```