Exercise 4: Documenting Constants

Let's say that you are given some code to control a little robotic ball. The code has declared constants that need documentation. You meet with someone on the developer team and take notes on what they are about. Open up a word processor that can create tables (Microsoft Word, Mac Pages, Google Doc, OpenOffice, etc.) and let's start documenting.

Lines of codes with constants

Here are the lines of code that need documenting:

```
const productName = "RoboBall";
const versionNumber = 1.6;
const commStop = 0x00;
const commMoveForward = 0x01;
const commMoveBackward = 0x02;
const commTurnLeft = 0x03;
const commTurnRight = 0x04;
const errBadSignal = 0xFF01;
const errBadCommand = 0xFF02;
const errBatteryLow = 0xFF03;
```

Notes from Your Meeting

Here's what you wrote in your meeting with the developer:

- Constants that start with "comm" are codes that you send to the robot to tell it what to do.
- Constants that start with "err" are error codes that the robot sends back if there is a problem.
    - errBadSignal means that the robot is not getting a good signal from the device
    - errBadCommand means that you sent a command that the robot doesn't recognize
    - errBatteryLow means that the robot's batteries are low
- productName is a string with the name of the physical product.
- versionNumber is the SDK version number

Document with a Table

Create a table in your word processor with four columns. The first row should have these columns: Name, Description, Type, and Value. Now, put the constants in alphabetical order and start filling in the table. There is no right answer for description, but take your best guess, and you can compare to my version in the end.

I'll start you off with the first one. Since this is JavaScript, the type is "Number". If it were a language where integer and decimals were different types, you would put an integer type.

Name	Description	Type	Value
commMoveBackward	Command code to send to the robot to move it backward.	Number	0x02

Document with Code

Now, under your table, redo the documentation, this time using code instead of the table. This should be a quick copy-and-paste operation. In fact, just do the first five rows of the table. If you can do those, the rest are easy.

Again, I'll do the first one. Use a monospace font like Courier for the code.

```
const commMoveBackward = 0x02;
```
Command code to send to the robot to move it backward.

Take a Look at How I've Done It

As I said before, there's no right answer for the descriptions. But take a look at how I've done it: http://sdkbridge.com/prog1/Exercise4Answers.pdf.

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