

Autonomous changes

These last couple weeks for the code I worked on revising the autonomous routine saving/loading to be not only cleaner, but faster too. To recap, our autonomous system uses signed 8 bit integers to store input values that range from -127 to +127 inclusive in a data type that can store -128 to +127 inclusive. This allows us to use only one byte for each input inside program memory to store inputs. However, when we would save the values we would up to 5 bytes to store these values. This was because we stored the values as numerical text instead of the raw data, had to store the sign as its own text byte, and had to use a comma to separate each value. To fix this we decided to instead convert the 8 bit integers to raw bytes, convert them to their respective byte characters, and make a file filled with these to cleanly store values. This was a great change and cleaned up / fastened the code at the same time due to the slowness of strings. It also compacted the files and made them "easier" to read. However we encountered the issue of not having a good editor to edit and view these files. So we decided that we would need to solve this problem ourselves later.