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Robot Shop Manual

The Robot shop program uses 4 menus, the Main, which links all 4 together, browse, which lets you see created models, create, which makes new ones, and order, which lets you pick a robot and then collect a customer’s info to place an order. These menus are operated in two ways, menus without the robot models listed are navigated by inputting a single letter. Menus with the robot models listed are navigated by entering in a number between 1 to the maximum to select a model, or entering in 0 to exit the menu.

The underlying code is based off robotpart being the bedrock for the program. All of the 5 robot part classes (Arm, Battery, Head, Locomotor, and Torso) inherit from this class. The RobotModel class incorporates the 5 parts and creates an object for each, to store the individual data of each part. RobotModel also stores the total price and total weight of all the parts. Keep in mind, in this version, both arms are identical (except for being left and right) and the 1 – 3 batteries that a robot may have are also identical. When creating those pieces of the robot, you set the parameters of a single part and the program will multiply them to make sure that the robot model has the appropriate price and weight.

Then, the MainMenu will incorporate the RobotModel class and make an array to store multiple robot models. The “const int maxModels” can dynamically change the number of models stored and the entire output will adjust to this one line of code changing.