Arduino is a company that makes fairly basic microcontroller boards and accessories that has its own coding environment that uses C++. Primarily, due to its basic nature, it is marketed toward students or beginners as a learning or prototyping tool. The basic model also only has 2Kb of ram while the largest has 96Kb. However, the size of the largest model is too large for commercial products given its processing power. Thus, in no regard should Arduino be used in commercial products as the boards nor the language is designed for more complicated tasks that commercial products require. This excludes simple commercial products, such as basic children toys or a card reader, which could use an Arduino board. Furthermore, the editing environment supplied with Arduino is also not the greatest as its debugging program is apparently lackluster and its language incredibly safe to its own detriment.

However, due to the simplicity of Arduino, it can be used to quickly prototype ideas to pitch to investors and customers and as a beginning point to a layman who is interested in electronics. By designing a product with Arduino first, a designer can discover potential problems, create a plan for further development, and figure out if the product is even worth pitching at a cheaper cost than if they had not used Arduino. Additionally, the simplicity of its environment and the fact that it is widely supported by many applications and hardware makes it much faster to produce a product. Finally, if one wants to try to get into electronics, they would only have to spend 25$ to get started. However, there are apparently other ways to create boards that have many of the abilities of an Arduino board for a fraction of the cost. Thus, the only real benefit is the simple environment paired with the Arduino’s compatibility.

http://www.instructables.com/id/20-Unbelievable-Arduino-Projects/