



7 Things about Makeblock mBot Ranger

1 - What is it?

The Makeblock mBot Ranger is an educational robot that is assembled by the user, and allows for customization and a further understanding of scratch coding. The scratch coding is used through different Makeblock apps, or through different terminals that support scratch programming, so it is most useful for students trying to learn coding, and it's real-life use.

2 - How does it work?

The Makeblock Ranger works through prefabricated pieces being constructed, and then attaching electrical components such as light sensors, distance detectors, and an arduino for power. Once they are attached, the ranger can be controlled through various apps for driving, playing sounds, or for programming scratch coding in a gamified setting.

3 - Who's doing it?

The Makeblock Ranger is made by the Makeblock company, and they have the leading Educational Robot kits worldwide.

4 - Why is it significant?

With the ability to be customized in any way, the Makeblock Ranger allows for a completely tailored experience to the user, and a platform to understand STEM technology in a friendly manner. The Makeblock is able to be a comprehensive kit to allow for an educational experience that includes hardware, software, and STEM construction.

5 - What are the downsides?

The Makeblock Ranger is quite expensive to invest in to gather all the different pieces if you are trying to combine components. Another downside is the limited use of the electronic components that are used, specifically the capabilities of the coding languages. Scratch doesn't allow for a full use of all programming paradigms. Scratch is a much more visible way of coding, but doesn't allow for extensive coding opportunities.

6 - Where is it going?

Makeblock is beginning to make each line in their hardware effortlessly customizable, and allows for different functions for each different kit that's bought. They're working on making 'do it yourself' drones, camera dollies, and catapult rams. They are also beginning to incorporate higher level electronic pieces, such as Raspberry Pis and Arduinos.

7 - What are the implications for higher education?

The Ranger is a great tool for higher education because it allows for a user-oriented STEM educational experience. With the inclusion of flexible computing devices, it allows for a higher understanding of coding, and the process that's needed to create a program that is able to sustain itself. With the customization, it can also allow for creative and innovative thinking to create potential solutions.

