

What is a Robot?

Merriam-Webster Dictionary:

- 1 a): a machine that looks like a human being and performs various complex acts (as walking or talking) of a human being; *also* : a similar but fictional machine whose lack of capacity for human emotions is often emphasized
- b): an efficient insensitive person who functions automatically
- 2: a device that automatically performs complicated often repetitive tasks
- 3: a mechanism guided by automatic controls

Carlo Bertocchini (Battlebots champion, owner of RobotBooks.com):

“Deciding if a machine is or is not a robot is like trying to decide if a certain shade of greenish blue is truly blue or not blue. Some people will call it blue while others will vote not blue. It is very difficult to call one person’s judgment correct and another’s incorrect. The same is true with robots today, and I suspect it will remain true for a long time to come.”

Roger Gilbertson (muscle wire guru and owner of The Robot Store):

“I define a robot as any autonomous sensor-processor-actuator system that functions in a specific world.”

Fred G. Martin (Assistant prof. of computer science at UMass):

“The term robot, while accurate, is too mentally confining. By my definition and thinking, systems such as musical light shows (which incorporate environmental sensing and sound processing), highway monitoring systems, hydroponic farms (with chemical sensors and environmental controllers), and even exercise machines which incorporate body sensors and performance monitoring features, can all be considered robots.”

Hans Moravec (robotics researcher and author of “Mind Children”):

“How about: a machine with sensory and behavioral abilities once found only in animals and humans.”

Marc Thorpe (“Robot Wars” mastermind):

“I would define a robot as any mechanical creation that has an identity apart from its functionality. Control and artificial intelligence are factors that define a robot to some extent. And, though I think control and AI are the determining factors in the development of robotics, I feel that neither is the defining factor. For me, paradoxically, a robot is a mechanical lifeform. In the sense, an automobile is not a robot, but a wind-up tin “robot toy” is. To me, a machine is a tool; a robot is a mechanical being—usually with a unique identity and often a name.”

Rodney Brooks (Director of the AI Lab at MIT):

“A robot is a machine which senses the world, computes, and then decides on some action in the world which has a physical reach beyond itself. The reason for the last clause is to make it so that a washing machine doesn’t fit the definition. At the same time, I don’t want to say that a robot has to be mobile, as there are lots of robots with fixed locations—as long as they can reach out somewhere beyond themselves. As with all definitions, it is possible to push on this one until it breaks.”