

## Teacher Lesson 8: Obstacle Avoidance

Tuff-Bot has a feature called Obstacle Avoidance. It can detect something in its path about 8 inches away, the same distance as each Forward step Tuff-Bot takes. When it approaches an obstacle while following commands, Tuff-Bot beeps, backs up, turns, and goes forward. This process repeats until the program ends.

The Avoidance button looks like this and lights up green when it is active. Simply press it to turn it on. It remains on until Tuff-Bot is turned off or goes to sleep.



The Avoidance feature works using sensors. Small objects don't trigger the sensors, but larger objects do.

Students can explore Obstacle Avoidance using the physical Tuff-Bot, either inside or outdoors, or using the Rugged Robot app, or the Tuff-Bot Online Emulator, which you and your students will meet soon.

Students will find it fun to create an Obstacle Course in their next activity.