Distance determination

In this document information can be found regarding the algorithm that calculated the approximate distance between the Bluetooth Tracking device and the BuddyBot.

Signal strength

The main factor which will be used to determine the distance will be the signal strength. RSSI is a common name that is used for signal strength value and is denoted in decibels. The higher the RSSI value the stronger, the signal strength. For example, a RSSI signal of -90 dBm is weaker than -40 dBm.

Formula

In order to calculate the distance in meters, the following formula is used: