

# process

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This document purpose is to describe the working process of the system.

1. We send the signal from the bracelet to the boat that it has to start.
2. We are sending coordinates every ? sec during the process from the bracelet to the boat (bracelet coordinates). (sending and receiving is done by RF modules in bracelet and boat)
3. Boat receives the coordinates.
4. Boat starts riding.
5. Boat is receiving coordinates from the bracelet every ? sec.
6. Boat is aiming for the bracelet position.
7. Boat is checking all the time its position and compering it to the received coordinates (using GPS, compass). It is calculating the angle. Thanks to it, it knows which side to turn to, to get back on the track.
8. If the boat is going wrong direction, then it is getting information from the program. The program is turning left or right motor stronger/weaker and making the boat turn.
9. Point 7 and 8 are repeated all the time during the process of getting to the final coordinates.
10. During the ride the sensor/sonda checks if there is something on the boat's way.
11. If point 10 is true, then the program needs to make the boat go other way, so it avoids the obstacle.
12. When the boat gets to the destination, the program should send information to the motors and stop them.
13. When the sensor/button on the boat gets signal/is pressed after certain amount of time the boat should start moving again.
14. The boat is going through the almost same process as before. However, it knows the coordinates of the beginning position, so it is going there.
15. During the way back the sonar is checking if there are any obstacles on the way. If they are they need to be avoided as mentioned above.