

Amphibian Bot

As the name suggests, in this project we will make a bot which can run on both water and land smoothly, we will not follow the mainstream path of hover mechanism, we are going to modify the wheels in such a way that it will run on water and land without any transformation in between which will help it to move smoothly from land to water and vice versa. Wheels would be in such a way that it will have two components, both the components will work all the time but they will come into play depending on where the bot is. Wheel will have a outer shaft which will have flaps, that will splash the water and will run over it. If possible we will try to add sonar system or nitro type mechanism. From sonar we will its data to make a target destroyer through some mechanism.

1. Motivation

An idea just came to mind that we can make a car run over water if modify its wheels and somehow make it float over the water surface.

2. Plan of action

First of all we are planning to make the bot as light weight as possible and try to make its shape streamline for easy movement in the water. Then we will have to design the shape of the shafts of the wheel to minimize the water resistance when its over water. While all this is going on we will take care of waterproofing of the bot also.

3. Components Required

Components required will be same as required to make a normal bot. Just in case if we have more time we would like to add the sonar mechanism at the bottom of our bot which will give the data of the depth of the water body.

4. Skills you need to learn

We will need to learn solid works in order to design our wheels also we will need to know about waterproofing of the bot and the electrical circuits involved in a wireless bot.