

**PROJECT NAME :** MOTION TRACKER AND SURVEILLANCE.

**TEAM NAME :** Boltz.

**TEAM MEMBERS :** Anurag, Sai priyatham, Tamil Arasu.

**COMPONENTS REQUIRED :**

1. Aluminium sheet.
2. Servo motors.
3. Relimates.
4. Camera.
5. Microcontroller.
6. Motor driver.
7. Battery
8. Sensors.
9. Electrodes.

**USABILITY :**

- Climbs walls.
- If equipped with a camera, can provide photographs from a place not feasible to approach.
- Can act as enemy tracking device

Our idea is to make a wall climbing bot that sticks to the surface using electroadhesion technique.

We first wanted to make it as a humanoid, but after listening to the comments by you in the brainstorming sessions we will reduce the scale a little bit.

Our bot will climb walls with the technique mentioned above but it will not have legs instead it will crawl over the surface of the wall.

Electroadhesion is a simple idea. Basically the lower surface of the bot has an array of electrodes placed close to each other alternately. As the distance is quite small, it can create large electric fields which will induce charges on the surface of the wall and stick to it. The remaining (for moving using wheels/belt) is a standard thing which we hope we can do with your help. We first want to test the idea, and then proceed with making the bot.

We have posted the links to the relevant videos here, please do take a look to get a better picture of what we want to do.

<http://en.wikipedia.org/wiki/Electroadhesion>

<http://www.sri.com/engage/products-solutions/electroadhesion>

[https://www.youtube.com/watch?v=90ssYjFO\\_TI](https://www.youtube.com/watch?v=90ssYjFO_TI)  
<https://www.youtube.com/watch?v=WC8XtH9i7qk>