Autonomous Wall Painting Bot

BY

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Introduction ○ ○ ○ ○

Painting is a mandatory process for any constructed building but it is a repetitive process which makes it an ideal case for automation. painting had been autonomous in automotive industry but there is a strong need for a mobile robot that can move and be able to paint interior walls of a residential building. This robot solves the hectic job of painting with ease and reduce the cost of time and cost of painting.
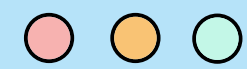
Development of the idea....

The main agenda of this project is to make a completely autonomous wall painting robot which is efficient and cheap. The bot can be designed in such a way that it can be able to scan the whole room and paint accordingly avoiding any obstacles in the way like switchboards and bed lamps which are installed onto the wall, paint with multiple colors and also paint designs on the wall.

Timeline ○ ○ ○ ○

The bot can be developed in stages so that the problems arising in each stage can be cleared there itself .and it could be properly tested before developing it any further

stage 1
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In stage 1 the CAD design of the model will me made. And research related the topic will be done which gives us more knowledge regarding the project we are working on

stage 2
○ ○ ○

after finalizing the CAD design. the part of the bot will be made which will paint the wall. And its should be able to perform basic movements

stage 3
○ ○ ○

in this stage the part made in stage 2 will be added to a base that can move and extend its height

stage 4
○ ○ ○

Now the the bot will be added sensors and cameras required for scanning and mapping the room.

Timeline ○ ○ ○ ○

stage 5

The bot now perfectly assembled and made completely autonomous and tested accordingly

stage 7

the bot can be further developed according to the requirements

Requirements

- 2 mechanical members
- 2 coding members
- 1 electrical members
- wheels
- motors
- aluminum rods
- plywood
- belt chain
- camera
- paint
- nozzel

Cost

Around 10,000 INR

Thank You

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