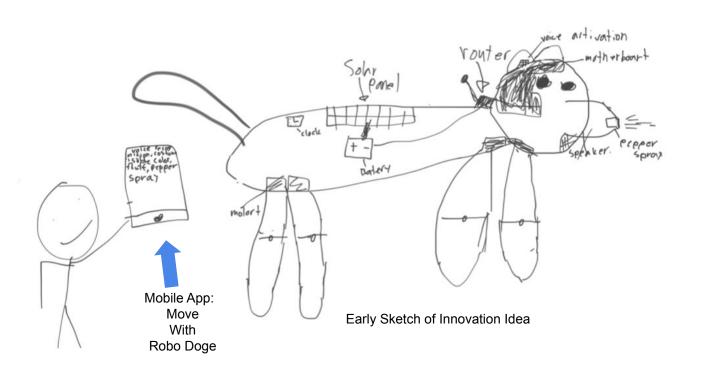
St. Cecilia School Robotics First Lego League 2021 Team 48201 - Robros

Innovation Project Presentation

Robo Doge



Inspire People to Move

Inspired by COVID Puppies

Robo Doge Innovation

The Robo Doge is not an invention. It is an innovation.

We are adding new features to existing robot dog designs.

Bringing science fiction to reality using latest technology and psychology.

The goal of the Robo Doge is to get people moving in a fun and exciting way.

And because we love dogs.



Why Robo Doge Works

Our innovation project is a robot that makes an annoying noise and runs away from you so you have to get up to chase it. It has a button that turns off the loud noise.

Our innovation project is different from everybody else because our robot has a mind of its own.

We will use our knowledge of:

- Benefits of Exercise
- Pavlov's Experiments
- Automating Exercise

We know that exercise is good for our health and robots are part of the future so how can we automate exercise?



Benefits of Exercise

There are many ways exercise can benefit you.

One way it can benefit you is it helps keep a healthy weight.

Another way is when you exercise for a long period of time your brain releases chemicals that calm you down and release stress, called endorphins.

You also feel better and you reduce your risk of heart disease when you exercise.

The next thing is it helps you keep your thinking, judgement skills, and learning sharp as you age.



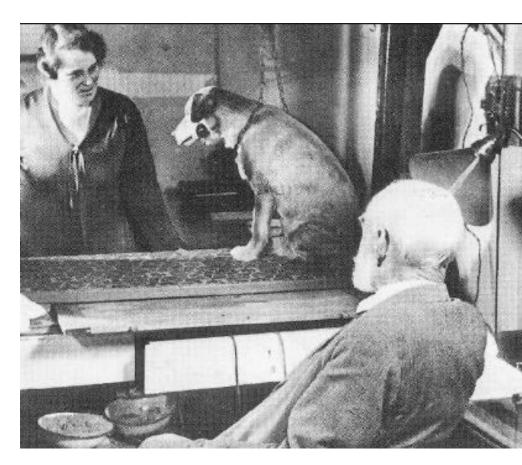
Pavlov's Experiments

Ivan Pavlov is a world renowned psychologist who was a pioneer in the field of classical conditioning.

The experiment he did involved him, his dog and a lab assistant.

Pavlov hooked his dog up to a machine that measures levels of the dog's saliva. Then he set to work on the experiment. His lab assistant brought food to the dog and the dog salivated. Then Pavlov rang a bell and nothing happened. Then he rang a bell and gave the dog his food. Then once he did that a few more times when he rang a bell the dog salivated.

The way we can apply that to our robot is that we can use our robot to train our brain to exercise, and by doing that help them stay fit.



Automating Exercise

New solutions for automating exercise are being developed every day. Some current solutions are Peloton and Fitbit.

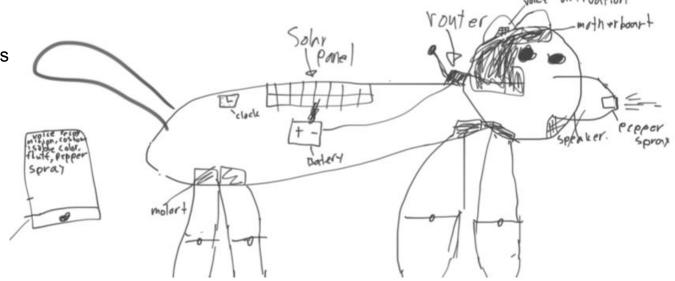
A Fitbit is a watch that can keep track of your steps, heart rate, weight, exercise, and more. Fitbits encourage you to run more, and you can challenge yourself to do more steps, and exercise more by being able to keep track of how you are improving.

A Peloton is an indoor bike with wifi and a touchscreen on it. You can do live and on demand classes. Peloton encourages you to keep on going by the ability to watch videos on the touchscreen that have people on it encouraging you to keep on going, and that you are almost there



How Does Robo Doge Work?

- It Has A Machine Learning CPU Were Its Brain Is
- It Has Solar Panels On Its Back To Charge Up
- Has Pepper Spray In Nose For Self Defence
- Has Router Imbedded To Turn Of Internet
- Connects via Bluetooth to an App
- Has Motor In Each Leg
- Eyes Are Distance Sensors
- Voice Activated



Robo Doge Fundraising Race

To help people get motivated with other people and to promote cooperitition across Robo Doge owners. The owner of a Robo Doge winnings gets donated to foundations and charities that help dog rescue and vet services.

You put in a wager costing \$8 to get a chance for your dog to win a race. If you do win, you get the bronze, silver, or gold dogs. First gets gold, second gets silver, ect.. if your dog wins it gets sent to the factory and modified and sent back as the new dog.

If you get the premium, you get 1 free betting coin for \$9.99 a month.

If you get the extra premium, you get 2 extra betting coins, for \$12.99 a month.



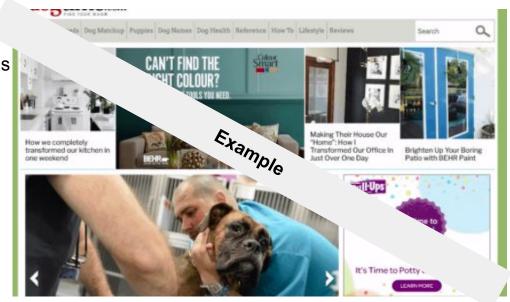
Robo Doge Customizable things

- Fur: Can Be Multiple Colors And Stick On. Also Stiles.It Can Be Wavy Or Straight, Curly Of Poofy Or No Fur.
- Speed: You Can Make It Go Faster So It Is Better In The Competition And It Can Fetch Faster
- Eyes: You Can Change Color You Want.



Robo Doge Website

- The website will have what rank you are in miles and the top 100
- It will have how far your last walk was
- It will have how many points you have
- It will have what you could use to customize your dog



"Move with Robo Doge" App

Pepper Spray,

Voice Recognition,

Customizable Fluff,

Set goals







Robo Doge Exercise Motivation

At the start of your workout, you set a walking rate, or a goal of how far you want to go. The dog will become "restless" and begin to move and bark to get you to move faster.

If you get below your goal for too long, your WIFI is in danger, and the dog may shut down the WIFI until goal is met.

If you don't speed up, your internet will be shut down.

If you are injured, you can change the settings to your needs.



Robo Doge Manufacturing Ideas

Build Your Own Trick-Savvy Dog with This DIY Robotics Kit

https://www.thisiscolossal.com/2020/09/petoi-robot-dog-div/



GoodBoy - 3D Printed Arduino Robot Dog

https://www.instructables.com/GoodBoy-3D-Printed-Arduino-Robot-Dog/



Printing Possible Through The St. Cecilia 3d Printing Class

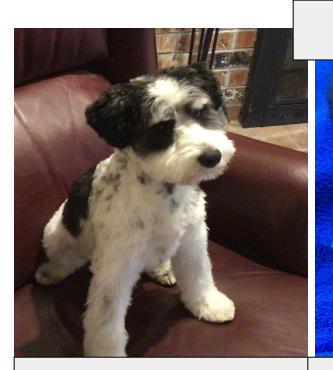
Robo Doge Inspiration

Our Team's COVID Puppies

This is what your doge's electronic profile could look like if you customize it.

You can customize it using points and you get points for every mile you walk or run.









Ollie

Robo Doge Sources

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Lego Innovation Doge

- Made of lego pieces
- Is four lego studs wide

