

IMAGE RECOGNITION— PLASTICS

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What are plastics and bioplastics?

Plastic is a polymer that can be recycled, coloured, reused, mould or drawn into wires or various other shapes whereas, Bioplastics are plastic materials produced from renewable biomass sources, such as vegetable fats and oils, corn starch etc.

Physical Differences between plastic and Bioplastic

<u>Bioplastic</u> <u>VS</u>	<u>Normal Plastic</u>
Bioplastic is made from lighter materials, making it thin and light.	Normal plastic is made of: carbon, hydrogen, oxygen, nitrogen, sulfur and chlorine, making it thicker.
Bioplastic takes only around 8-10 months to biodegrade.	Normal plastic takes a long time to Biodegrade
Bioplastics are made of reusable materials such as paper, straw, flour, cups and leaves.	Normal plastic are non reusable materials such as: plastic bottles, plastic straws and plastic bags.
Bioplastics are usually less resistant to water than plastic, so it doesn't get thrown into the sea and pollute the ocean.	Normal plastic can harm animals because when it's lying around it will get washed up to the sea and could harm them.
Bioplastic lasts only 3-7 months.	Normal plastic lasts for around a century.

Problem Statement

The computer will identify the two different types of plastic and categorize them as “plastic” or “bioplastics”.

The word "Pitch" is written in a bold, dark green, sans-serif font. It is underlined with a thick dark green line. The logo is surrounded by several green leaf illustrations: a small sprig with three leaves to the upper left, a single leaf to the upper right, a sprig with three leaves to the lower left, and a sprig with three leaves to the lower right.


Pitch

People should use this project if they are uncertain about what is a plastic and a bioplastic as the computer can tell them apart. It will help people recognize and use Bioplastic more and plastic less. The often-cited advantages of bioplastics are reduced use of fossil fuel resources, less pollution, less global warming, and a more eco-friendly world.



How does AI affect and help the problem statement?

With AI the computer is able to understand the different algorithms, codes, variables and will be able to solve the problem state. Since it is comparing the differences between plastic and Bioplastic with the help of AI the computer can tell us the differences between those 2 as we know plastic is more dangerous while on the other hand Bioplastic is biodegradable.

- What does Biodegradable mean exactly? It means when plastic decomposes into the earth's surface.
- 

How will it benefit the AI Community?

It will benefit the AI community because people will know that the computer is a reliable source to detect materials. Without AI computers won't be able to identify the different algorithms, codes and variables. So if the computer is not able to identify those 3 important things it will not be able to solve any problem that is blocking the computer's way. The development of AI could enable many advances, while also hampering others.

Here is the link to our graph:

https://colab.research.google.com/drive/18cQGmeEosJrkXD-QGAS_IOVS61yDz9IH#scrollTo=pCqJk-BjgrkA

The link for our Project!!

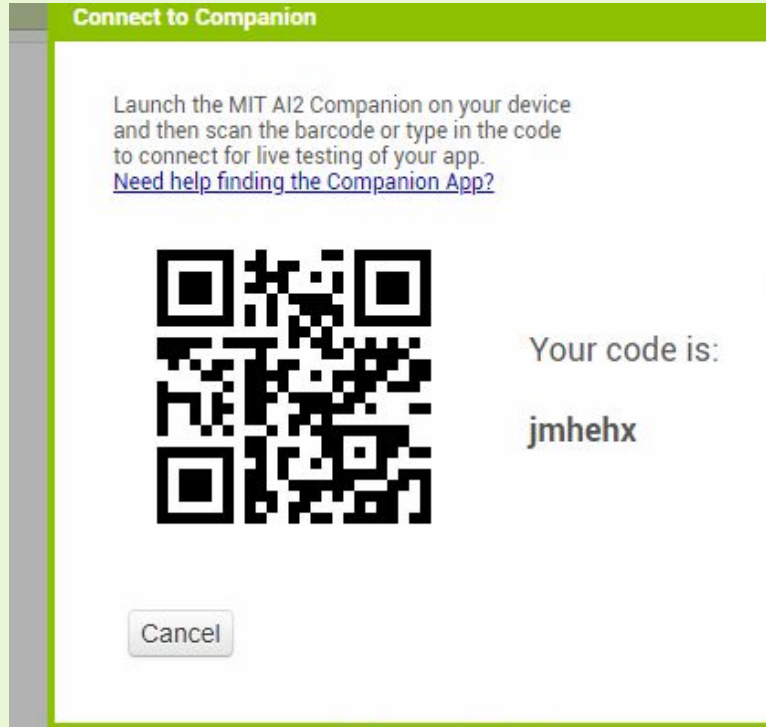
<https://teachablemachine.withgoogle.com/train/image/11qv9dl6BSZIxun5hz5LygtFmltq5zNJJu>

Here is an app that we created:

<http://ai2.appinventor.mit.edu/#5141679515238400>



Here is our Qr code!



TRIVIA

Q1: What is our teachable machine project recognizing?

A: It is recognizing plastic from paper.

B: It is recognizing whether normal plastic is better or Bioplastic is better.

TRIVIA



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Q2: What is one way that our project benefits the AI community?

A: It will teach people what bioplastic and plastic is made of.

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Q3: Which is made of heavier material?

A: Bioplastic

B: Plastic

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A: Bioplastic

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TRIVIA



Q4:What is the problem statement the computer will face?

A: Whether paper is better or a pencil.



B: Which is plastic and bioplastic.



TRIVIA

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A: Whether paper is better or a pencil.

B: Which is plastic and bioplastic.

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Q5: What is one advantage about Bioplastic?

A: It reduces global warming.

B: It is used in petrol and is cheaper.

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Q6: What website did we use for our project?

A: We used Github

B: We used Teachable Machine Learning

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Thank You!!

We hope you learnt
something- and liked our
project!!

