

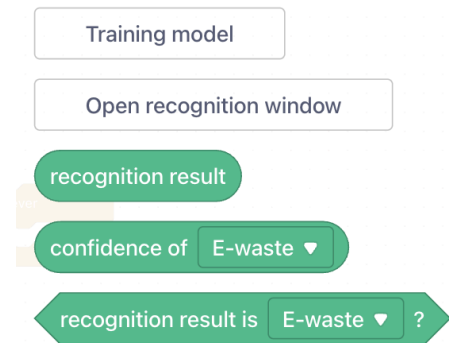
WasteWise- AI that sorts out waste types

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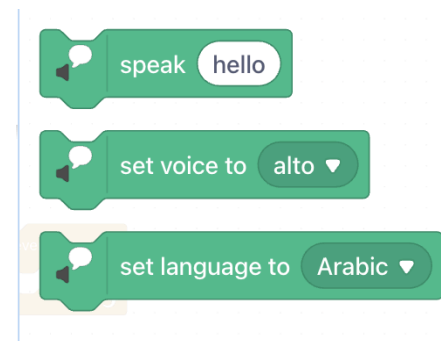
For IngeniumSTEM Winter Hacks 1.0

Logic of the code: according to the recognition result obtained from the training model, each category will be assigned the best disposal method which will be displayed next to the sprite and spoke

Attach appropriate screenshots and explain the entire coding process briefly. This should be done for all the codes you have and using different colored code blocks explaining their needs and their use. Explain which block does what.



In the teachable machine extension blocks these three blocks give us the result of the model. Whatever is shown in the camera, will be detected and used as the recognition result.



In the text to speech extension blocks these three blocks give us the freedom to convert text to voice messages, this is how our sprite will guide the users for the best disposal method.

Let's see the detailed code for the project that does the magic of bringing AI waste sorting to life!

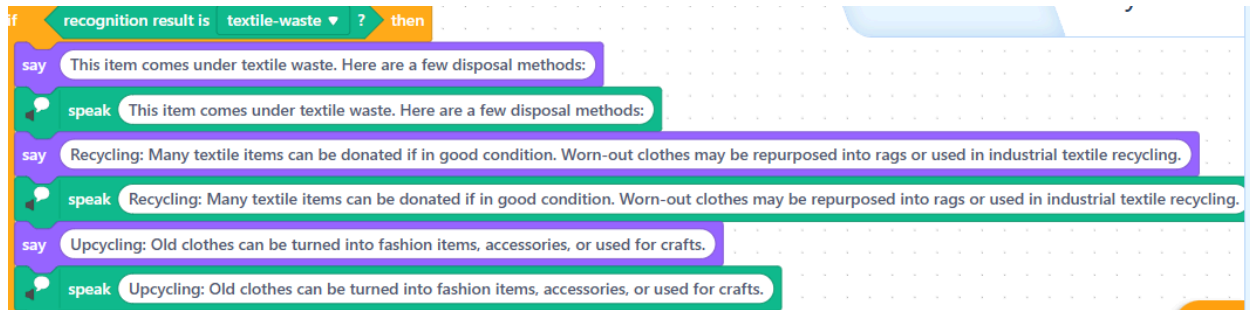


```
if recognition result is plastic-waste ? then
  say This item comes under plastic waste. Here are a few disposal methods:
  speak This item comes under plastic waste. Here are a few disposal methods:
  say Recycling: Check local recycling guidelines for specific types of plastic (e.g., #1 and #2 plastics are most commonly recycled).
  speak Recycling: Check local recycling guidelines for specific types of plastic (e.g., #1 and #2 plastics are most commonly recycled).
  say Alternative Uses: Plastic bags can sometimes be repurposed for other uses (e.g., as trash liners).
  speak Alternative Uses: Plastic bags can sometimes be repurposed for other uses (e.g., as trash liners).
  say Upcycling: Certain plastics can be creatively repurposed for DIY projects.
  speak Upcycling: Certain plastics can be creatively repurposed for DIY projects.
```

```
if recognition result is rubber-waste ? then
  say This item comes under rubber waste. Here are a few disposal methods:
  speak This item comes under rubber waste. Here are a few disposal methods:
  say Recycling: Some types of rubber (especially natural rubber) can be recycled, although it's less common than other materials.
  speak Recycling: Some types of rubber (especially natural rubber) can be recycled, although it's less common than other materials.
  say Upcycling: Rubber items can be repurposed into other products or even used in creative DIY projects.
  speak Upcycling: Rubber items can be repurposed into other products or even used in creative DIY projects.
```

```
if recognition result is glass-waste ? then
  say This item comes under glass waste. Here are a few disposal methods:
  speak This item comes under glass waste. Here are a few disposal methods:
  say Recycling: Glass is widely recyclable but should be sorted by color where applicable. Clean the containers before recycling.
  speak Recycling: Glass is widely recyclable but should be sorted by color where applicable. Clean the containers before recycling.
  say Alternative Uses: Glass jars can be reused for storage or DIY projects (e.g., candle holders, plant pots).
  speak Alternative Uses: Glass jars can be reused for storage or DIY projects (e.g., candle holders, plant pots).
```

```
if recognition result is metal-waste ? then
  say This item comes under metal waste. Here are a few disposal methods:
  speak This item comes under metal waste. Here are a few disposal methods:
  say Recycling: Metals like aluminum and steel are widely recyclable. Clean them before recycling.
  speak Recycling: Metals like aluminum and steel are widely recyclable. Clean them before recycling.
  say Alternative Use: Small metal objects can be repurposed for art or craft projects.
  speak Alternative Use: Small metal objects can be repurposed for art or craft projects.
```



The green flag is the symbol to click when you want the code to start. The 'wait 2 seconds' is for you to show the object properly. The set voice block has multiple voice presets, so I chose the one that sounds most like a panda (which is the sprite for this project). Then, the if blocks are used for the condition where a specific waste type is shown. "If" laptop is shown, which comes under e-waste, then the training model will allocate the image as e-waste and the sprite will give the disposal method for that category. The recognition result block shows which result is recognised by the AI from the training model or teachable machine. The 'say' block is the one that helps display the text which is written in the white space on the screen and the 'speak' block uses the voice set earlier to say what is typed in the white space.