Included in this lesson is:

What is Artificial Intelligence (AI)?

What will this lesson teach you?

How to get started.
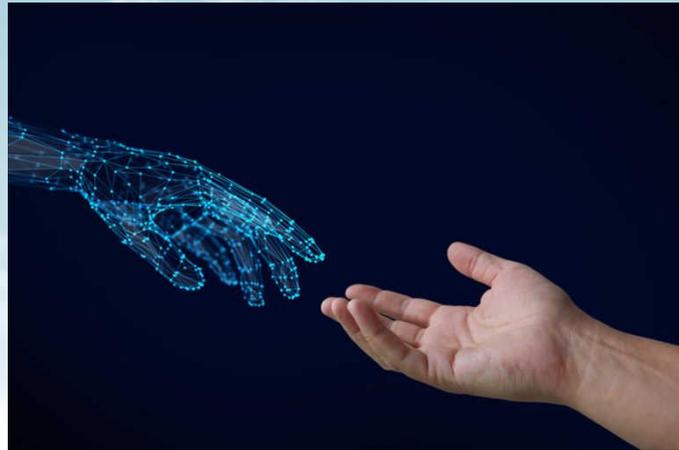
Step by step guide to change the code

What does my script mean?

makeblock

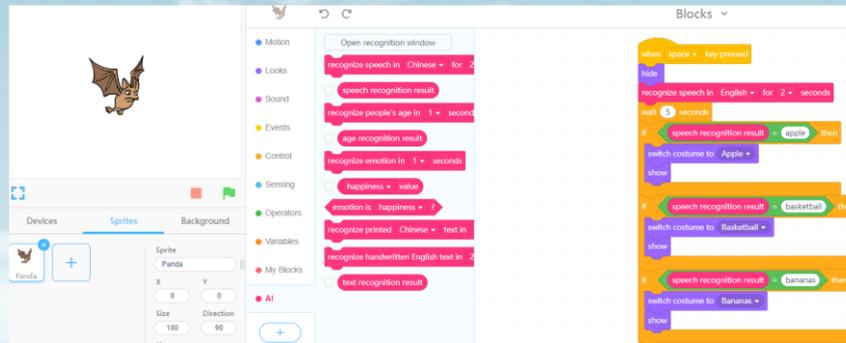# What is Artificial Intelligence?

Making computers 'smart'

Programming machines to perform tasks like humans

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This lesson will teach you to:

integrate AI into block
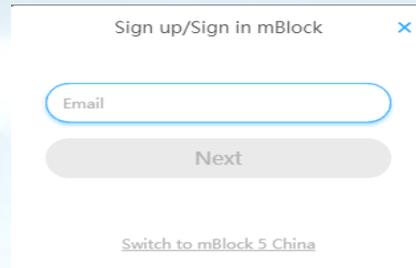based programming

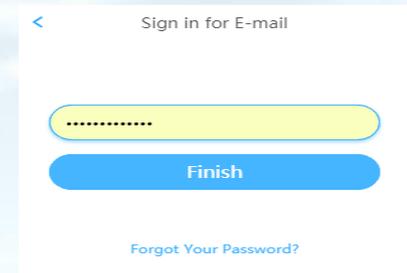teach the program
word recognition using
your voice

1

3

2

edit an
existing program

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How to get started

Copy & paste the link below into your browser:
http://ide.makeblock.com

Sign into mBlock using one of the temporary emails on the next slide

Click on this icon to sign in

Sign up/Sign in mBlock ✕

Email

Next

Switch to mBlock 5 China

‹ Sign in for E-mail

....

Finish

Forgot Your Password?

Text

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Sign-in emails and passwords

Email address	Password
darcy.li@makeblock.com	123456
suhaifeng@makeblock.com	123456
kathy.jin@makeblock.com	123456
may.zheng@makeblock.com	123456
daisy.wang@makeblock.com	123456
kelly.guo@makeblock.com	123456
kate.wu@makeblock.com	123456
arya.xie@makeblock.com	123456
lillien.lai@makeblock.com	123456
kitty.wang@makeblock.com	123456
xiaoxiao@makeblock.com	123456
MK.miao@makeblock.com	123456
joy.gong@makeblock.com	123456
nora.xu@makeblock.com	123456
cailifan@makeblock.com	123456

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Getting started

Choose example programs from the drop down menu

Ensure that AI is selected and click on the words recognition program
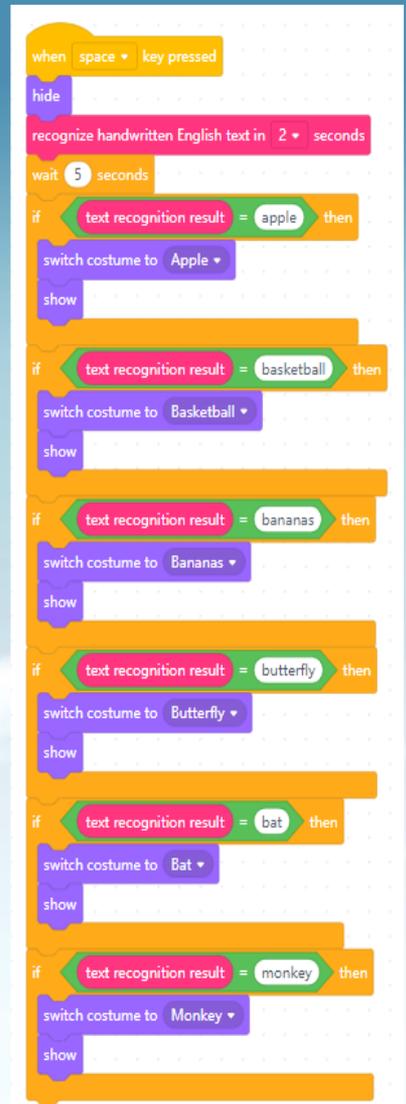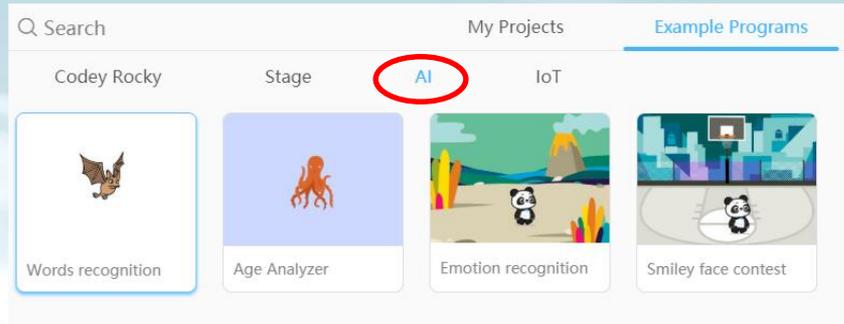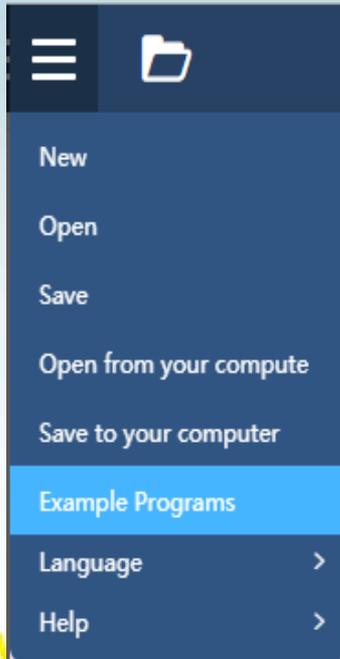
This code is generated automatically

New

Open

Save

Open from your compute

Save to your computer

Example Programs

Language

Help

Search   My Projects   Example Programs

Codey Rocky   Stage   AI   IoT

Words recognition   Age Analyzer   Emotion recognition   Smiley face contest

when space key pressed

hide

recognize handwritten English text in 2 seconds

wait 5 seconds

if text recognition result = apple then
switch costume to Apple
show

if text recognition result = basketball then
switch costume to Basketball
show

if text recognition result = bananas then
switch costume to Bananas
show

if text recognition result = butterfly then
switch costume to Butterfly
show

if text recognition result = bat then
switch costume to Bat
show

if text recognition result = monkey then
switch costume to Monkey
show

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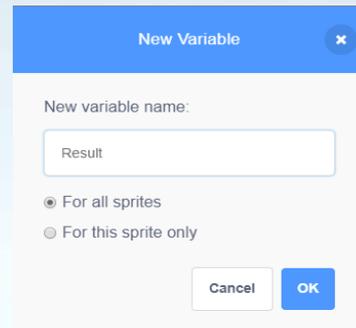# Creating a variable

Now you can begin editing the program...

Later, we want to see what the computer recognises when you speak to it.

To do this,we need to create a 'result variable' and set the result to speech recognition.
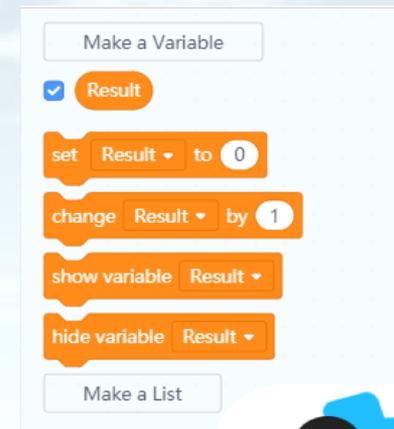
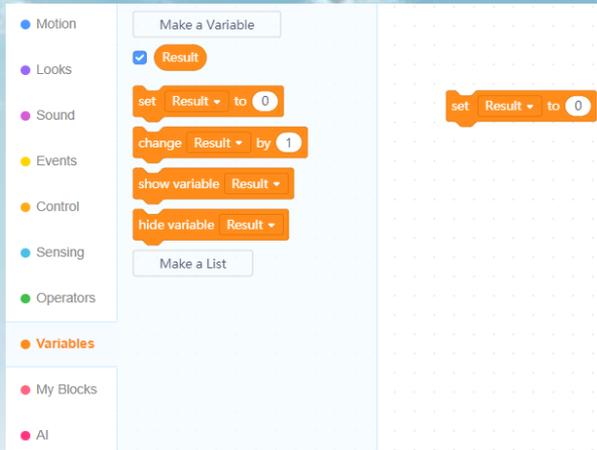Select variables from the toolbar (orange)
Click on 'Make a variable'
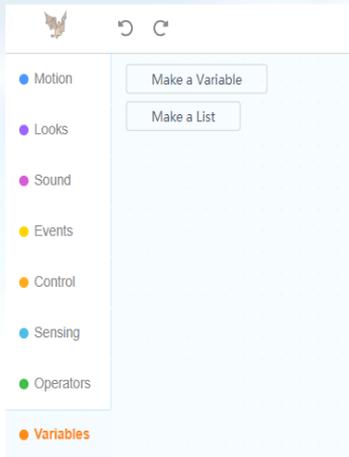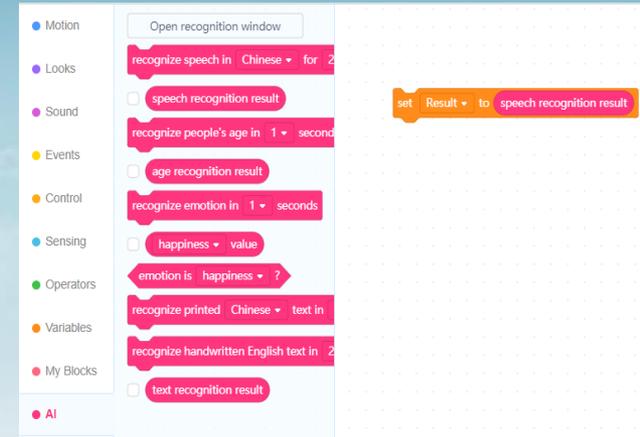
Name the new variable result and click OK

The result variable is ready to use

Drag a 'set result to 0' block into the screen

Choose the AI tab from the toolbar and drag the 'speech recognition result' block inside the circle to replace the 0.

Drop the new variable block between
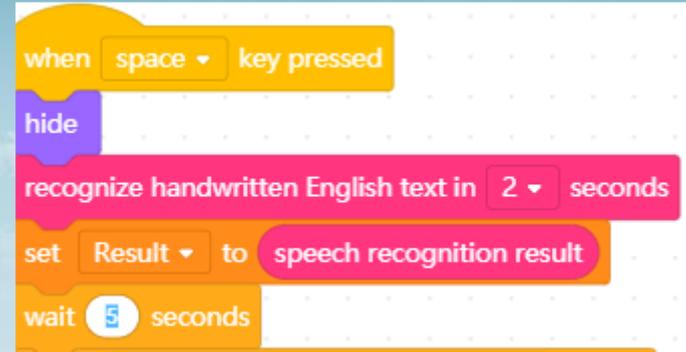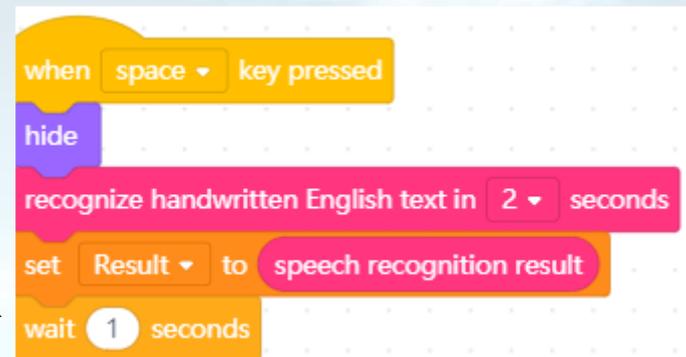

and

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Editing the wait time

Since we are editing the program to recognise speech in place of written text, the wait time can be shortened

when space ▾ key pressed
hide
recognize handwritten English text in 2 ▾ seconds
set Result ▾ to speech recognition result
wait 5 seconds

Insert the cursor inside the circle of the 'wait 5 seconds block'
Type 1 in place of 5

when space ▾ key pressed
hide
recognize handwritten English text in 2 ▾ seconds
set Result ▾ to speech recognition result
wait 1 seconds

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Deleting a block

The 'recognize handwritten English in 2 seconds' block is no longer needed for this program

First drag all blocks underneath this block away from it

Drag 'the recognize handwritten English in 2 seconds' block to the toolbar. When a trash can appears, you can drop it

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Adding a new block

Now it's time to add the speech recognition block
This block can be found in the AI tab (pink)

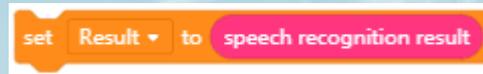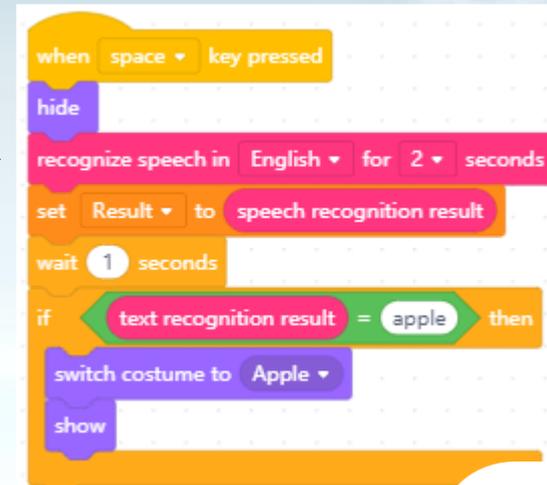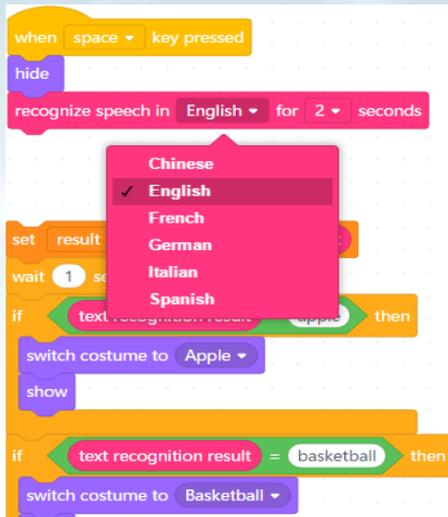Drag and drop   `recognize speech in Chinese ▼ for 2 ▼ seconds`

between `hide` and   `set Result ▼ to speech recognition result`

Use the drop down menu to
change the language to English

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Replacing blocks

Now it's time to replace all 5 remaining `text recognition result` blocks with `speech recognition result`
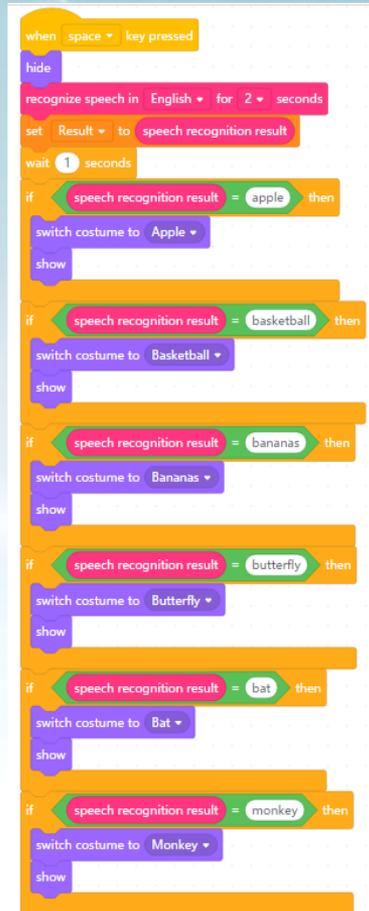
Delete all 'text recognition result' blocks by dragging them to the toolbar and dropping them when the trash can appears.

Drag 'speech recognition result' blocks into each of the 5 empty spaces

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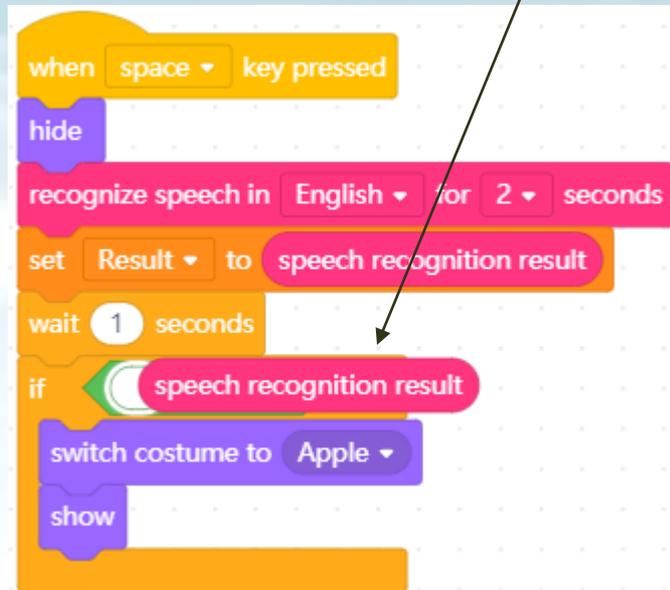
New script

Now your program has been successfully edited and you have created a new script that looks like this:

What does the script mean?

When space is pressed:
you will see only a blank screen
you have one second to say one of the 5 words
you will see in the corner of the screen what the computer has heard
the program will wait one second
if the computer hears apple
then an apple will appear on the screen
if the computer hears basketball
then a basketball will appear on the screen
if the computer hears bananas
then bananas will appear on the screen
if the computer hears bat
then a bat will appear on the screen
if the computer hears monkey then a monkey will appear on the screen

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Time to play

Press 'space' and say the word 'apple' clearly

Result **Apple**

Result **Awful**

The result shows the computer heard the word 'apple'

The result shows the computer heard the word 'awful'

Success! You see an apple!

Result **Apple**

Try again! You only see a blank screen

Result **Awful**

Congratulations, you have successfully completed an AI project! You programmed a script to recognize speech!

Why not try making your own AI project?
We even have an AI robot

Artificial Intelligence and programming

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