

## CODING ACTIVITY －日月 日 TRSTER PRCK



## MARTY CODING CARDS

Choose a set of cards from the list below.
There's a mixture of standalone cards and some that build upon the preceding card.

- Events*
- Motion*
- Looks
- Sound
- Sensing - Color Sensing
- Speech
* If you are new to Marty and coding, start with these two sets to learn the basics.


## HOW TO USE THE CODING CARDS

You will need to use these cards alongside the MartyBlocks coding environment, which can be found within the Marty the Robot app.


## EVENTS

These cards are designed to introduce you to the basics of MartyBlocks, and get you started on your coding journey.

1. Getting Started
2. Keyboard Function*

* This card requires a keyboard


## GETTING STARTED

Open the Events menu

## Events



This will allow you to control Marty

Try It


Add some code to try it out, then click the green flag to start

## KEEYBORD FUNCTION

## Events

Open the Events menu

# when space $\nabla$ key pressed 

This will allow you to control Marty with the keyboard

* This will only work where a keyboard is available

Add some code to try it out, then push the space bar to start


## MOTION

These cards can be completed in any order but it may help to do them in numerical order.

1. Get Marty Ready
2. Marty Goes Forward
3. Marty Goes Backwards
4. Slide to the Left
5. Slide to the Right
6. Marty Makes a Square

## GET MARTY READY

Open the Motion menu


Get Marty ready to move

## Try It



Click the green flag to start

## MARTY GOES FORWARD

## -- Walk 2 steps forwards

Find this block in the Motion menu

Challenge:
Make Marty walk a different number of steps
forwards

Click the green flag to start

## MARTY GOES BACKWARDS

## - Walk 2 steps backwards

Find this block in the Motion menu

(-) Walk 2 steps backwards

## Challenge:

Make Marty walk a different number of steps backwards

Click the green flag to start

## SLIDE TO THE LEFT

## -7 Slide 1 times to the let Find this block in the Motion menu

## when $\curvearrowleft$ clicked



Challenge:
Make Marty slide a different number of times to the left

## Try It



Click the green flag to start

## SLIDE TO THE RIGHT

# $\div$ 

Slide 1 times to the right $\square$

Find this block in the Motion menu
$\div$ Slide
1
times to the
right $\square$

Challenge:
Make Marty slide a different number of times to the right


Click the green flag to start

## MARTY MAKES A SQUARE


$\square$
Slide 1
times to the

Find these blocks in the Motion menu


## Challenge:

Make Marty create different size squares

## Click the green flag to start

## LOOKS

These cards can be completed in any order but it may help to do them in numerical order.

1. What Color are Marty's Eyes?*
2. Marty Shows Off*

* This card requires LED eyes


## WHAT COLOR ARE MARTY'S EYES?



Find this block in the Looks menu


## Challenge:

Change Marty's eyes to be your favorite color

Click the green flag to start

## MARTY SHOWS OFF

## $\odot$ Set Both eyes - LEDs to pattern show-off -

Find this block in the Looks menu

## Challenge:

What patterns can you make Marty's eyes do?

Click the green flag to start

## SQUND

These cards should be completed in numerical order.

1. Play a Tune $1^{*}$
2. Play a Tune 2*
3. Play a Tune $3^{*}$

* This card requires a keyboard


## PLAY ATUNE 1

## when $a \triangleright$ key pressed

Find this block in the Event menu


## Challenge:

Make Marty play the note with a keyboard

## PLAY A TUNE ?



Find this block in the Event menu


Make Marty play the notes

## Try It

B
Press the keys

## PLAY A TUNE 3



## Create blocks for all notes: A B C D E F G



Challenge:
Make Marty play a tune

## SENSING - COLDR SENSING

These cards should be completed in numerical order.

1. Marty Color Sensing 1
2. Marty Color Sensing 2
3. Marty Color Sensing 3
4. Marty Color Sensing 4

## MARTY COLOR SENSING 1

Open the Sensing menu


Color: LeftColorSensor unclear

Select Color Sensor to show the color sensed

## $\div$ <br> LeftColorSensor $\nabla$ <br> Color Sensor

Add the Color Sensor block and select LeftColorSensor from the drop down menu

## MARTY COLOR SENSING ?



Open the Operators menu and find this block

# Place the Color Sensor block into one side of the Equals Block and change the other side of it to red 

## MARTY COLOR SENSING 3



Open the Control menu and find these blocks


Place the previous blocks into the Control blocks

## MARTY COLOR SENSING 4



Motion

Open the Motion menu and find these blocks


## Challenge:

What other colors can you get Marty to detect?

## Try It



Click the green flag to start

## SPEECH

These cards should be completed in numerical order.

1. Marty Speaks
2. Set Marty's Voice
3. Set Marty's Accent
4. Marty Translates

## MARTY SPEAKS

Open the Speak menu

## Speak



## Challenge:

Make Marty say different words

## Try It



Click the green flag to start

## SET MARTY'S VOICE



Find this block in the Speak menu


## Challenge:

Change Marty's voice

## Try It



Click the green flag to start

## SET MARTY'S ACCENT

## set accent to Spanish $\nabla$

Find this block in the Speak menu


## Challenge:

Give Marty a different accent

Click the green flag to start

## MARTY TRANSLLTES

Find this block in the Speak menu

## when $叩$ clicked



## (-) Marty speak $\frac{x^{2}}{A}$ translate hello to Spanish -

## Challenge:

Make Marty translate words into different languages

Click the green flag to start

