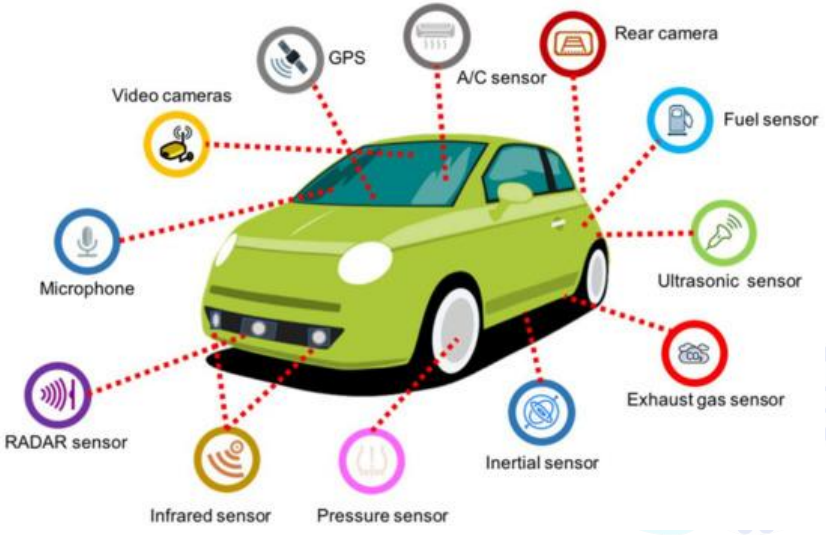
Lesson 19 – Introduction to Device Library

Enablers



Enabled

Lesson Learning

In the above slide, did you notice two important words - Enablers & Enabled?

Would you not like to learn about them?

Sprites can only teach you the basics, but converting the basics to real life use only happens if you also learn:

- **Firstly, coding of real sensors & devices.**
- **Secondly, coding them in professional languages like Python & embedded C.**

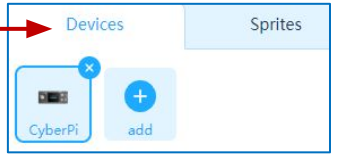
In this lesson, & all subsequent lessons on devices till level 3, we shall teach two things:

1. Coding of different sensors, using different robots & devices.
2. Why & how to slowly keep migrating from Scratch, to Python & Embedded C, so that by the time you finish scratch, you have also learnt the fundamentals of Python & embedded C?

Accessing the Device Library

To access the device library, in SIA, Select devices.

Default device Cyber Pi gets highlighted.

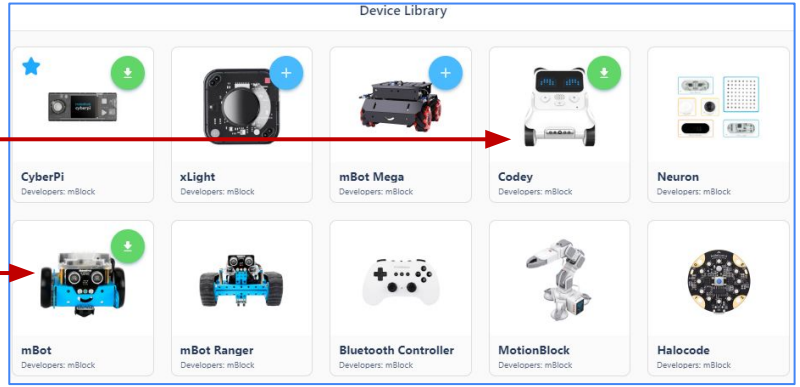


Library offers dozens of other options including use of third party devices like Arduino & Raspberry Pi.

In level 1, we shall work on Cody Rocky

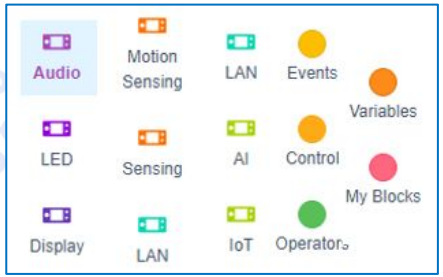
& mBot only.

Will learn others in levels 2 & 3.



Working with Default Device

Cyber Pi is the default device. It offers blocks to code the following.



See the statements of each block.

This will give you an idea of the possibilities.

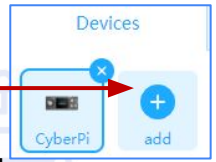
Coding Cyber Pi will be learnt in level 3.

Also see 

the extension library applicable to cyber Pi.

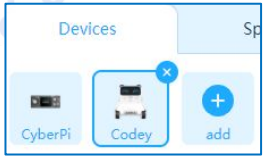
Accessing Other Device in the Library

To add other devices, Click add.



Device library opens. In device library:

- Select device (Codey) & click ok.



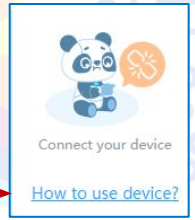
- Codey gets added

& blocks & block statements for Codey can be seen & used.

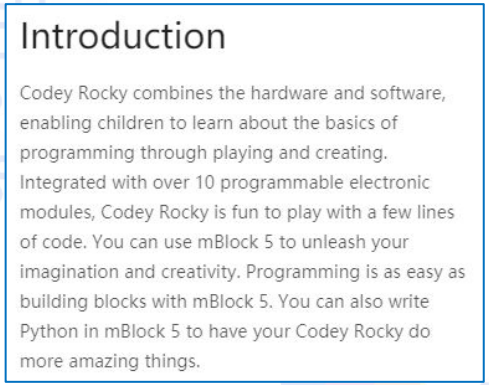
- In addition, are the blocks & block statements of its block extension library. Kindly go over them for information of possibilities.

In-built Device Tutorials

When the device gets added, you will see this useful link on the screen.



On clicking it, a short tutorial on the device appears.



Block Extension of Selected Device

These are similar to Sprites & are used in same way.

They contain addl block statements to do more types of coding projects with the selected device.

To use click on add.

Blocks related to that appear.

Take Aways…

- Device library is similar to Sprite library.
- Every device has its own set of blocks & block statements that get highlighted when the device is selected.
- In addition, every device has its own extension library.
- Together, they offer hundreds of blocks, & thousands of statements to work & learn from.

Time to Do.

Go over the block extension of Codey Rocky & mBot.

See the block statements including extensions of each.

This will give you an idea of the huge scope of learning options using these two.

End of Lesson 19

Code Karega India Badhega