

Kai's Clan Lesson Plan – Education Driver's Licence

Suitable Years 4 to 6.

Welcome to the Kai's Clan Education Driver's Licence activities where students "Explore, Play and Learn" to earn a Kai's Clan Driver Licence. There are three Education Driver Licences:

1. **Level 0 Yellow Learner's Permit:** Students begin to "Explore" the robot's components, the user interface and how to setup for programming.
2. **Level 1 Red Provisional Licence:** Students "Play" with the basic programming blocks to move the robot freely without the use of the adventure mats.
3. **Level 2 Green Provisional Licence:** Students "Learn" to program the robot using the features for the adventure mats.

At the end of each level there is a short test for students to demonstrate what they have learnt.

"Let's Explore"





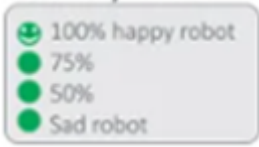


Getting Started: Level 0 Learner's Permit



The skills that students need to demonstrate effectively are:

- turn robot on and off
- demonstrate how to charge the robot
- drag programming blocks to the workspace
- open and close tabs
- connect the robot to the app

Explore Kai robot (hardware)

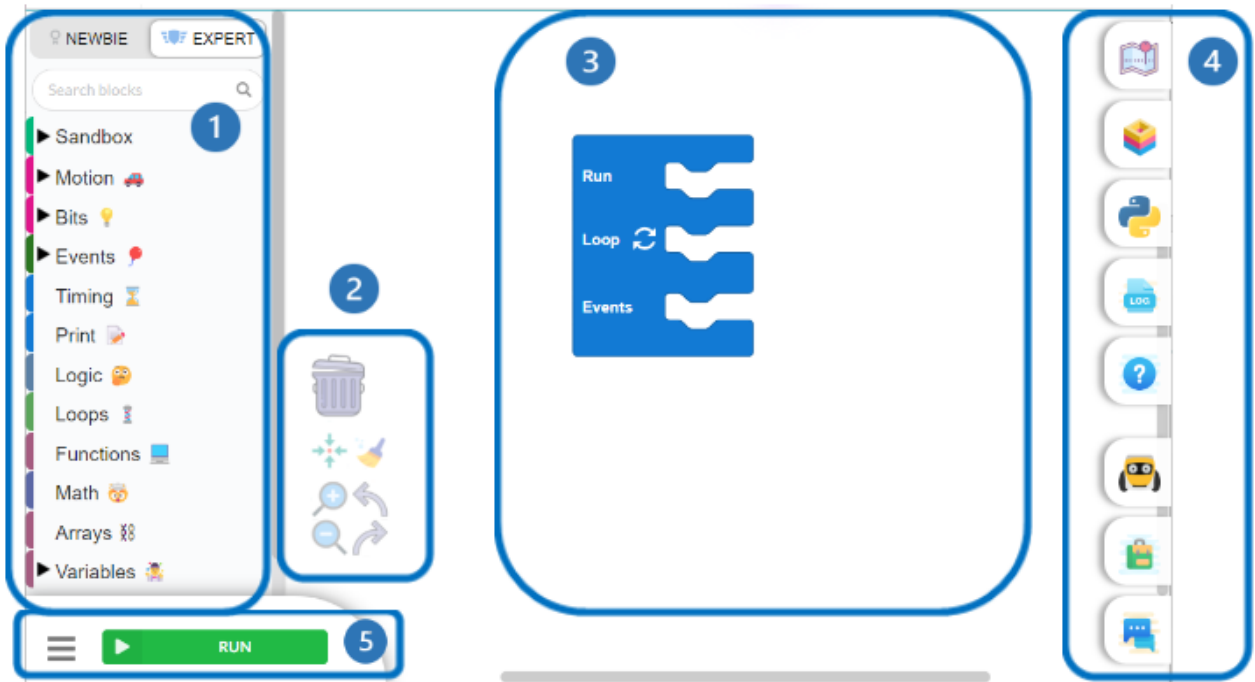
<p>Turn the robot on.</p> 	<p>Turn the robot off.</p> 
<p>The eyes flash and the gripper opens.</p> 	<p>The eyes turn off and the gripper closes.</p> 
<p>Battery level.</p>  	<p>Charging port.</p> 
<p>When charging, both lights flash green.</p> 	<p> When fully charged, lights blink pink and the robot beeps.</p>

Explore Kai's Cloud (software)

Navigate the Kai's Cloud user interface software that is accessible through the cloud.

The following activities require a pre setup using the [User Guide](#) or the [Quick Start Video](#) on YouTube.

1. On your computer open <https://app.kaisclan.ai/>
2. Register a Teacher account.
3. Setup a classroom session.
4. This will produce a QR code for the students to scan.
5. Explore the user interface as outlined below.



1

All of the Kai programming block options.

2

Workspace tools – bin, focus, clean, zoom, undo, redo.

3

Workspace with the Run, Loop, Events block than can never be removed.

4








Tabs menu with more options.

5

Button to run the code.

Explore how to connect a Kai robot

Robots need to be connected before you can use the programming blocks. You will need two devices (computers and iPads both work) for this process. All Kai robots use Bluetooth to pair.

<p>On your device (computer) have the Kai's Cloud user interface open at the classroom session.</p>	<p>https://app.kaisclan.ai/</p>
<p>On a separate device with a camera (iPad) download Kai's Eye Robot app.</p>	
<p>Open the app in the Home section and select the QR scan option. With the device scan the QR code attached to the Kai's Cloud classroom session. This will open the session on the device in the app.</p>	
<p>Switch on one robot and bring it to the device. The grippers will open automatically.</p>	
<p>Through the assign ID option on the device, pair the robot ID number and save ID. This should also match to the robot eye colours.</p>	
<p>When paired, robot's grippers will close and the front eyes will be flashing two colours. Repeat the process for all robots.</p>	
<p>To start programming, use the Kai's Cloud user interface on the other device. To check your robot is connected, open the Robot Manager tab on screen right.</p>	
<p>If the robot is online it will show as blue. If the robot needs to be charged it will show as red. If the robot is switched off it will show as grey.</p>	

Great job!

You have learnt about the parts on a Kai robot - the hardware, the parts of Kai's Cloud – the software, and how to connect the robot for action.

Now it is time to do your Learner's Permit test!

Level 0: Learner's Permit Test



Now it's time to take the Learner's Permit test. Set up a space so students can demonstrate the following:

1. Turn robot on and off.
2. Demonstrate how to charge the robot.
3. Drag programming blocks into the workspace.
4. Open and close software tabs
5. Connect the robot to the app

Did you pass? Well done!



Learner's Permit

Awarded to _____

Class _____

I can successfully:

- turn a robot on and off
- charge the robot
- drag programming blocks into the workspace
- open and close the side tabs
- connect the robot to the app



Learner's Permit

Awarded to _____

Class _____

I can successfully:

- turn a robot on and off
- charge the robot
- drag programming blocks into the workspace
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For more information

Please visit our webpage <https://csermooocs.adelaide.edu.au/lending-library>

Email cser@adelaide.edu.au

We would like to thank the Australian Government Department of Education for funding our Lending Library and associated resource development.