Electronic Diagram Drawer API (LOGO friendly “library”):

**Source Code:**

To DrawShell :shellno

make "size 100

repeat :shellno [arc 360 :size make "size :size + 50]

END

TO DrawElectron :shellno :electronno

setxy 0 0

make "radius 100+(50\*:shellno)

make "angle 0

make "angle\_change 360/:electronno

repeat :electronno [PU setxy ((cos(:angle))\*:radius) ((sin(:angle))\*:radius) PD arc 360 10 fill make "angle :angle + :angle\_change]

PU

setxy 0 0

PD

END

To DrawSymbol :text

setlabelheight 100

pu

setxy -55 -30

rt 90

label :text

setxy 0 0

pd

END

**Example: (Draw the electron diagram of Chlorine)**

CS

HT

DrawShell 3

DrawElectron 0 2

DrawElectron 1 8

DrawElectron 2 7

DrawSymbol "Cl

**Installation: (Basically Setting up the environment)**

1. Copy the source code to the “console” of the LOGO online interpreter
2. Click RUN
3. The library should now be added to LOGO
4. Enjoy using the “API”

Notice:

You should “install” the API every time you open the interpreter.

**Function informations:**

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DrawShell ***shell\_number***:

Description:

Function to draw electron shell

Argument:

***shell\_number*** : The no. of shell you wanted to draw

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DrawElectron ***shell\_number electron\_number***:

Description:

Function to draw electron on the corresponding shell

Argument:

***shell\_number*** : The shell you want to draw to, 0 represents the innermost shell.

***electron\_number*** : The number of electrons you wanted to draw in that shell.

Example:

Drawing 2 electron on K-shell:

**DrawElectron 0 2**

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DrawSymbol ***element\_symbol***:

Description:

Function to draw the symbol of the element

Argument:

***element \_symbol***: The symbol of the element, in form of: ***“<Symbol> [space]***

Example:

Draw Chlorine’s symbol:

**DrawSymbol “Cl**

* Note that a **space** **should be followed** by the **end** of the symbol, For example:

Valid: **“Cl*<space>***

Invalid: **“Cl**

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About Creator:

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