YOU KNOW THIS METAL RECTANGLE FULL OF LITTLE LIGHTS?

Yeah.

I SPEND MOST OF MY LIFE PRESSING BUTTONS TO MAKE THE PATTERN OF LIGHTS CHANGE HOWEVER I WANT.

Sounds good.

BUT TODAY, THE PATTERN OF LIGHTS IS ALL WRONG!

Oh god! Try pressing more buttons!

IT'S NOT HELPING!
Goals

• Know the syntax used to call a function with or without arguments.

• Understand the behavior of the print function with multiple arguments.

• Know how to use the input function with no arguments to pause a program.

• Know how to use the input function with an argument.
Function Calls

\begin{verbatim}
print("Hello, world!")
print(3 * 4 + 2)
print("Hello", 3 * 4 + 2)
\end{verbatim}

Each of these lines makes a call to the print function.

What exactly is a function? More on this later.

For now: it's a thing that does stuff for us.
Function Calls

Each of these lines makes a call to the print function.

What exactly is a function? More on this later.

For now: it's a thing that does stuff for us. (We make it do stuff for us by calling it.)

Here's another example of a function call:

Let's see if we can figure out what stuff it does...
Demo: print and input

- the Shell pane in Thonny
- `print(3 * 4 + 2)`
- Print with multiple arguments
  - A space is printed between each
- `input()` to pause the program
- Input with a prompt
Function Calls

- We’ve seen two functions so far:
  - print and input

- Functions can take inputs, called arguments

  ```python
  print("some text")
  
  "some text" is an argument to the print function call
  ```

- or not:

  ```python
  input()
  
  input is called with no arguments here
  ```
Function Calls

• Syntax for a function call:

\textcolor{green}{\textbf{print}("I am", 32, "years old")}

- Function name
- Comma-separated list of arguments
- Open paren
- Close paren
Function Calls

• Functions have rules about how many arguments they take, what they mean, and how the function behaves.

  • Example: print takes any number of arguments. It prints each of its arguments separated by spaces, followed by a line break.

  • Example: input takes zero or one argument.
Function Calls

• Functions have rules about how many arguments they take, what they mean, and how the function behaves.

• Need to know anything about a function? You can look it up in the documentation!

• My approach: google search for `python 3 <yourfunction> function` and pick the first result from `python.org`

• It may look intimidating now - don't panic!