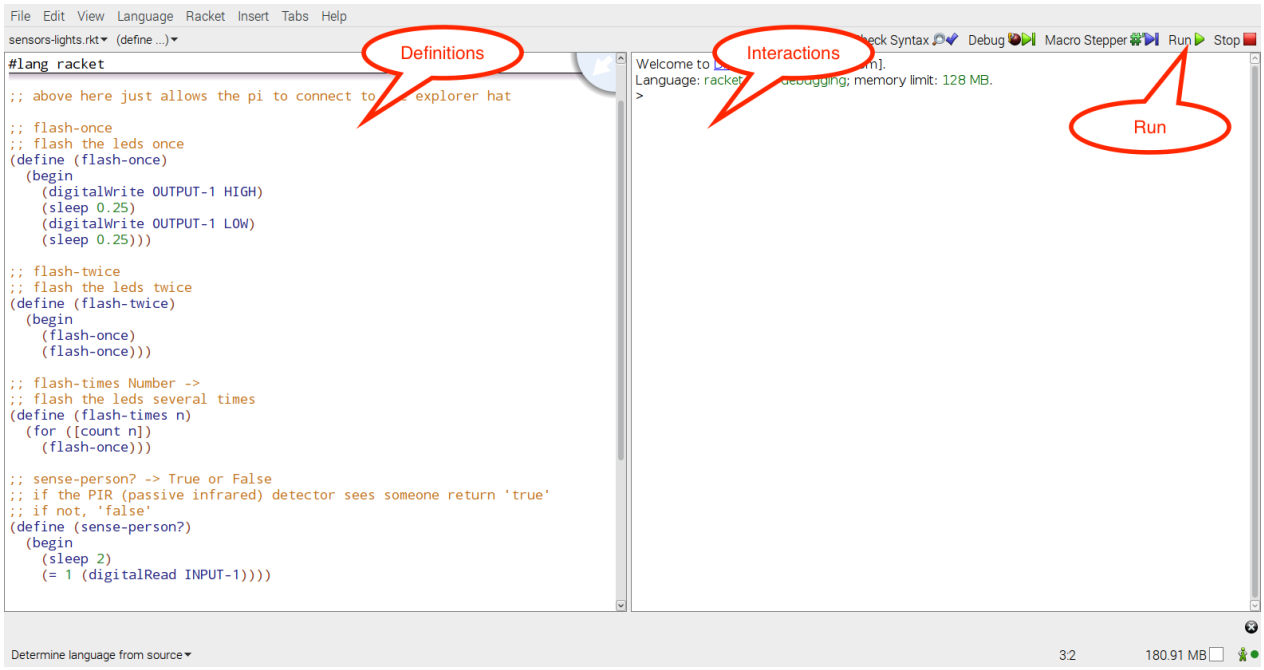
Activity 1 (Act—light LEDs)

This activity is to show how you can:
- create **actions**; flashing a string of LEDs which have been 'hacked' and attached to a Raspberry Pi
- sense people using a PIR (passive infrared) sensor—the same type that can be used for switching on outdoor lights

Find the Raspberry Pi with a string of lights attached. On the screen should be a Racket language display.



You've already got some definitions provided. Make sure they're ready by pressing the *run* button. Now try them out. Type the function name into the *interactions* window and hit *enter* key. Something should happen!

Actions

function name	what it does
(flash-once)	flash the leds once
(flash-twice)	flash the leds twice
(flash-times n)	flash the leds several times

Sensing people

function name	what it does
(sense-person?)	check if the PIR sensor has detected someone
(alarm)	a simple person alarm

Try out (sense-person?) with the sensor covered by a sheet of paper.
- What value does it return?
- Now remove the sheet of paper and move around near the sensor. What happens now?

Try the (alarm) function. Explain what behaviour you see.