
Assignment two

To get acquainted with the ARM architecture together with the Sense Hat Board, describe the ARM architecture.

Next, under Raspbian, develop a test program in C that controls the actuators and sensors on the Sense Hat Board using the I²C driver and a Sense Hat library.

To get acquainted with the I²C driver, write an equivalent program without using the Sense Hat library. These programs will be your reference point for the RiscOS Sense Hat driver and has to work under RiscOS with the software you have to develop in the remainder of the project.

Write code in assembler that controls the LED-array and the joy-stick, using Raspbian and I²C. It is forbidden to use the Sense Hat library, the RTIMUlib and the frame-buffer device driver. You have to address the I²C bus directly.

<https://github.com/raspberrypi/rpi-sense/blob/master/rpi-sense.S> gives the rpi-sense.S, Atmel assembly routines for the LED framebuffer scan-out.