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Lab 6  
CSE 121 Spring 2023  
Due 5/25/23

I did not use ChatGPT at all to complete this lab. I instead only referenced official documentation and example code to complete the lab assignment.

Official ADC one-shot mode documentation:

[https://docs.espressif.com/projects/esp-idf/en/latest/esp32c3/api-reference/peripherals/adc\\_one\\_shot.html?highlight=adc#\\_CPPv414adc\\_bitwidth\\_t](https://docs.espressif.com/projects/esp-idf/en/latest/esp32c3/api-reference/peripherals/adc_one_shot.html?highlight=adc#_CPPv414adc_bitwidth_t)

Official ADC example code:

[https://github.com/espressif/esp-idf/blob/d00e7b5af897cc5fafe51fae19c57f0313b81edf/examples/peripherals/adc/oneshot\\_read/main/oneshot\\_read\\_main.c](https://github.com/espressif/esp-idf/blob/d00e7b5af897cc5fafe51fae19c57f0313b81edf/examples/peripherals/adc/oneshot_read/main/oneshot_read_main.c)

RUST dev board reference: <https://github.com/esp-rs/esp-rust-board>

My fastest character rate was around **8 char/sec** for accurate morse reading. It fails at around **10 char/sec**.