

MTRX2700 Lab 2 Meeting Minutes

Date: Thursday 15 April 2021

Procedural note: At the end of each meeting, a separate PDF version of the meeting notes will be created and uploaded to the repository.

Present:

Apologies: None

Welcome:

Meeting Purpose:

- **Add the tutor and Stewart to the Github repository.**
- Delegate questions to each of the group members (5 minutes)
- Create a timeline and meeting schedule (outside of class) for completing Lab 2 (10 minutes)

Previous Actions: None

Regular Items

- Questions 1 and 2 to be delegated to group members without access to the board.
- Testing with the board can be completed with any computer in PNR.
- The extension questions are not bonus marks. They all add up to 100.
- Make sure the driver for the USB-C is installed.
- **Question 1 Brainstorm**
 - Refer to Chapter 8 Huang
 - Refer to the timer reference manual (Page 371 of the book)
 - Page 47 of Huang has more information about arithmetic operations
 - *Event counting.* An event can be represented by a signal edge. An input-capture channel can be used in conjunction with an output-compare function to count the number of events that occur during an interval. An event counter can be set up and incremented by the input-capture interrupt service routine. This application is illustrated in Figure 8.11.

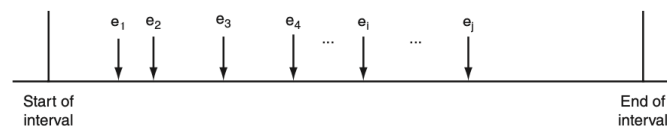


Figure 8.11 ■ Using an input-capture function for event counting

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- **Question 2 Brainstorm**
- **Question 3 Brainstorm**
 - Refer to Chapter 8 Huang pg. 413 - Star Spangled Banner

New Items

- **Timer question:** Compiler will change operations to make them quicker. Make sure that the things you are doing are not optimised by the compiler. You can use the disassembler to find out what's going on in detail.

AOB

TO DO

- **Vincent:** Complete the plan, core functionality and one extension question of Q1 by Wed 21/04
- **Reihanna:** Complete the plan, core functionality and first draft solution of Q2 by Wed 21/04
- **Jack:** Complete the plan, core functionality and first draft solution of Q2 by Wed 21/04

Next Meetings (Potential Schedule)

- **During the week meeting:** In-person meeting at University to iron out issues and test out on the Dragon board (Monday or Tuesday - **19/04/2021 or 20/04/2021**)
- **Thursday Lab:** Finish the majority (80%) of the lab, giving us a week until the presentation
- **Weekend meeting (Sunday 25/04/2021):** Ideally in person but can be over zoom. Finish off the rest of the lab (20%) and start working on the report.
- **During the week meeting (Monday 26/04/2021):** In-person meeting at University to test out all of the functionality of the code as well as how we're going to present it.
- **Wednesday (28/04/2021):** Final test of all of the code and finalising the README.