

## CEC300 Project #2 - ATCRBS Pulses

In this assignment you are tasked to write the software for an ATCRBS transponder. The program will take in 4 octal digits A,B,C,D, and produce the correct ATCRBS pulse sequence. Represent a pulse being present with a 1 and a pulse not being present with a 0. Pulse sequence is shown in Fig. 1. Do not consider the SPI pulse. If the input digits are not valid octal digits, print “invalid input”.

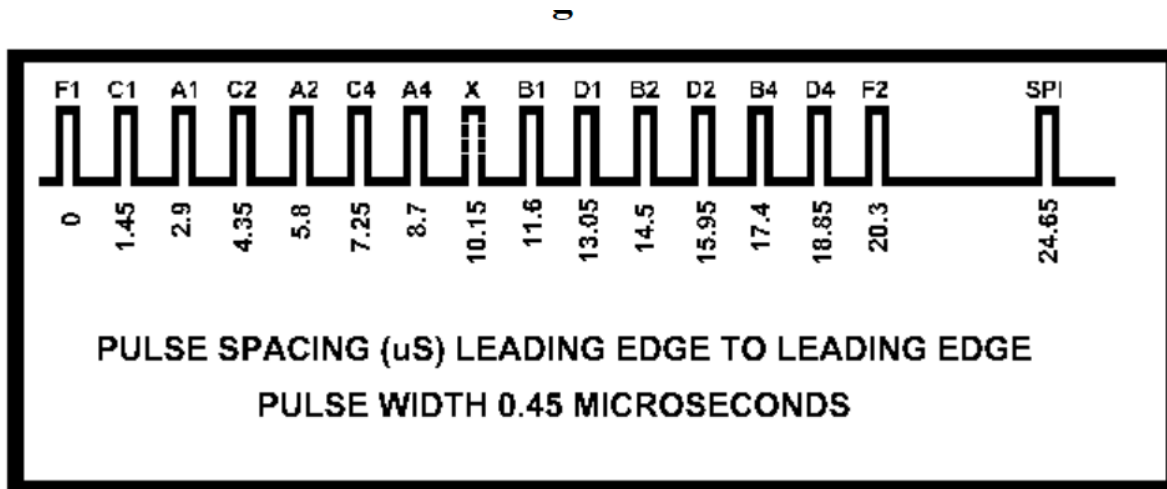


Fig. 1. ATCRBS pulse sequence.

### Task:

- Review the provided document to understand how the ATCRBS pulse is generated.
- Create a Matlab function that creates the corresponding pulse sequence, when valid octal numbers are provided. Examples:

```
>> ATCRBS(1,2,3,4)
```

```
'111100000010011'
```

```
>> ATCRBS(1,2,3,9)
```

```
'invalid input'
```

### Grading Rubric:

Produces the correct result for arbitrary octal inputs.	7 points
Project correctly handles invalid data	2 points
Well commented code	1 points