Mech103 - Lab 09

Created by: Erick Valentin Created on: 04/09/21 Last Modified: 4/18/21 Description: This script performes the calculations required to complete the excercises labeled in the Lab09 outline.

Batduino

Last Modified: 4/18/21

```matlab
clc
clear

a = arduino();
Speak = 'D5';
bat = ultrasonic(a,'D11','D10');


while (1)
    distance =  readDistance(bat)

    if (distance < 0.75)
        writeDigitalPin(a,'D7',1);
        writeDigitalPin(a,'D6',1);
        writeDigitalPin(a,'D4',0);
        writeDigitalPin(a,'D3',0);
        writeDigitalPin(a,'D2',0);
    elseif (1 <distance < 0.75)
        writeDigitalPin(a,'D7',0);
        writeDigitalPin(a,'D6',1);
        writeDigitalPin(a,'D4',0);
        writeDigitalPin(a,'D3',0);
        writeDigitalPin(a,'D2',0);
    elseif (1.5 < distance < 0.75)
        writeDigitalPin(a,'D7',0);
        writeDigitalPin(a,'D6',0);
        writeDigitalPin(a,'D4',1);
        writeDigitalPin(a,'D3',0);
        writeDigitalPin(a,'D2',0);
    elseif (2 < distance < 1)
        writeDigitalPin(a,'D7',0);
        writeDigitalPin(a,'D6',0);
        writeDigitalPin(a,'D4',0);
        writeDigitalPin(a,'D3',1);
        writeDigitalPin(a,'D2',0);
    else (distance > 2)
        writeDigitalPin(a,'D7',0);
        writeDigitalPin(a,'D6',0);
        writeDigitalPin(a,'D4',0);
        writeDigitalPin(a,'D3',1);
        writeDigitalPin(a,'D2',1);

    end
```

```
end
```

```
Error using Valentin_Lab09 (line 13)
Cannot detect Arduino hardware. Make sure Arduino hardware is properly
 plugged in.
```

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