

MATLAB GUI Communication

Day 2 of 2

Prior to Day 19

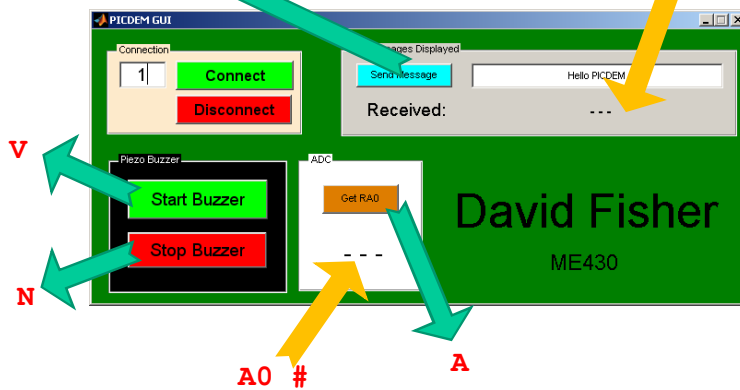


ME430: MECHATRONICS

Robot Car Functions

Hello PICDEM

David Fisher is 32 year old.



ME430: MECHATRONICS

Additions to handles struct

- Add to struct within local function
- Example:
 - handles.user.connected
 - handles.user.pic
- Add function changes to handles to global struct

```
% Update handles structure
guidata(hObject, handles);
```



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Sending Data

Sending is easy!

```
fprintf(handles.user.pic, 'F');
```

Receiving is a bit more complex

Need to modify handles WITHIN the serial callback function! Need to pass handles to that function!



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Fancier openSerial function

- openSerialWithHandles
 - Passes in the handles structure
- handles.user.pic = openSerialWithHandles(1, handles)
- Details within the openSerialWithHandles
 'BytesAvailableFcn',{@serial_PIC_BytesAvailableFcn,handles});


```
function serial_PIC_BytesAvailableFcn(serialObj, eventData, handles)
```



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Modify Static Text within callback

Understanding the existing code

Cell array of char strings

```
set(handles.text_receivedMessages, 'String', receivedCommand);

if( strcmp(receivedStrings{1}, 'A0'))
    set(handles.text_RA0value, 'String', receivedStrings{2});
end
```



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