function varargout = untitled2(varargin)

% UNTITLED2 MATLAB code for untitled2.fig

% UNTITLED2, by itself, creates a new UNTITLED2 or raises the existing

% singleton\*.

%

% H = UNTITLED2 returns the handle to a new UNTITLED2 or the handle to

% the existing singleton\*.

%

% UNTITLED2('CALLBACK',hObject,eventData,handles,...) calls the local

% function named CALLBACK in UNTITLED2.M with the given input arguments.

%

% UNTITLED2('Property','Value',...) creates a new UNTITLED2 or raises the

% existing singleton\*. Starting from the left, property value pairs are

% applied to the GUI before untitled2\_OpeningFcn gets called. An

% unrecognized property name or invalid value makes property application

% stop. All inputs are passed to untitled2\_OpeningFcn via varargin.

%

% \*See GUI Options on GUIDE's Tools menu. Choose "GUI allows only one

% instance to run (singleton)".

%

% See also: GUIDE, GUIDATA, GUIHANDLES

% Edit the above text to modify the response to help untitled2

% Last Modified by GUIDE v2.5 08-Dec-2016 04:28:04

% Begin initialization code - DO NOT EDIT

gui\_Singleton = 1;

gui\_State = struct('gui\_Name', mfilename, ...

'gui\_Singleton', gui\_Singleton, ...

'gui\_OpeningFcn', @untitled2\_OpeningFcn, ...

'gui\_OutputFcn', @untitled2\_OutputFcn, ...

'gui\_LayoutFcn', [] , ...

'gui\_Callback', []);

if nargin && ischar(varargin{1})

gui\_State.gui\_Callback = str2func(varargin{1});

end

if nargout

[varargout{1:nargout}] = gui\_mainfcn(gui\_State, varargin{:});

else

gui\_mainfcn(gui\_State, varargin{:});

end

% End initialization code - DO NOT EDIT

% --- Executes just before untitled2 is made visible.

function untitled2\_OpeningFcn(hObject, eventdata, handles, varargin)

% This function has no output args, see OutputFcn.

% hObject handle to figure

% eventdata reserved - to be defined in a future version of MATLAB

% handles structure with handles and user data (see GUIDATA)

% varargin command line arguments to untitled2 (see VARARGIN)

% Choose default command line output for untitled2

handles.output = hObject;

% Update handles structure

guidata(hObject, handles);

% UIWAIT makes untitled2 wait for user response (see UIRESUME)

% uiwait(handles.figure1);

delete(instrfind({'PORT'},{'COM3'}));

clear a;

global a;

a=arduino('COM3');

a.configureDigitalPin(7,'output');

a.configureDigitalPin(13,'output');

a.configureAnalogPin(0,'input');

% --- Outputs from this function are returned to the command line.

function varargout = untitled2\_OutputFcn(hObject, eventdata, handles)

% varargout cell array for returning output args (see VARARGOUT);

% hObject handle to figure

% eventdata reserved - to be defined in a future version of MATLAB

% handles structure with handles and user data (see GUIDATA)

% Get default command line output from handles structure

varargout{1} = handles.output;

function edit1\_Callback(hObject, eventdata, handles)

% hObject handle to edit1 (see GCBO)

% eventdata reserved - to be defined in a future version of MATLAB

% handles structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit1 as text

% str2double(get(hObject,'String')) returns contents of edit1 as a double

%handles.data1=get(hObject,'String');

%handles.thresh=str2double(handles.data1);

%plot(0,handles.thresh,'LineWidth',1,'color','red');

%guidata(hObject, handles);

% --- Executes during object creation, after setting all properties.

function edit1\_CreateFcn(hObject, eventdata, handles)

% hObject handle to edit1 (see GCBO)

% eventdata reserved - to be defined in a future version of MATLAB

% handles empty - handles not created until after all CreateFcns called

% Hint: edit controls usually have a white background on Windows.

% See ISPC and COMPUTER.

if ispc && isequal(get(hObject,'BackgroundColor'), get(0,'defaultUicontrolBackgroundColor'))

set(hObject,'BackgroundColor','white');

end

function edit2\_Callback(hObject, eventdata, handles)

% hObject handle to edit2 (see GCBO)

% eventdata reserved - to be defined in a future version of MATLAB

% handles structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit2 as text

% str2double(get(hObject,'String')) returns contents of edit2 as a double

%handles.data2=get(hObject,'String');

%sample=str2double(handles.data2);

%guidata(hObject, handles);

% --- Executes during object creation, after setting all properties.

function edit2\_CreateFcn(hObject, eventdata, handles)

% hObject handle to edit2 (see GCBO)

% eventdata reserved - to be defined in a future version of MATLAB

% handles empty - handles not created until after all CreateFcns called

% Hint: edit controls usually have a white background on Windows.

% See ISPC and COMPUTER.

if ispc && isequal(get(hObject,'BackgroundColor'), get(0,'defaultUicontrolBackgroundColor'))

set(hObject,'BackgroundColor','white');

end

% --- Executes on button press in strt.

function strt\_Callback(hObject, eventdata, handles)

% hObject handle to strt (see GCBO)

% eventdata reserved - to be defined in a future version of MATLAB

% handles structure with handles and user data (see GUIDATA)

global a;

a.writeDigitalPin(7,1);

% --- Executes on button press in stp.

function stp\_Callback(hObject, eventdata, handles)

% hObject handle to stp (see GCBO)

% eventdata reserved - to be defined in a future version of MATLAB

% handles structure with handles and user data (see GUIDATA)

global a;

a.writeDigitalPin(7,0);

% --- Executes on button press in pltt.

function pltt\_Callback(hObject, eventdata, handles)

% hObject handle to pltt (see GCBO)

% eventdata reserved - to be defined in a future version of MATLAB

% handles structure with handles and user data (see GUIDATA)

global a;

n=0;

thresh=get(handles.edit1,'string');

sample=get(handles.edit2,'string');

datasample=str2double(sample);

m=str2double(thresh);

s=2\*m;

for k=1:datasample

b=a.readVoltage(0);

n=[n,b];

plot(n);

axis auto;

if b>m

a.writeDigitalPin(13,1);

else

a.writeDigitalPin(13,0);

end

end

pause(0.01);