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% ECE 4560 - Homework 6, Problem 7
% Caitlyn Caggia

%modified from testCalib01.m

function HW6prob7

myparms = load('pikparms.mat');
pikh = piktul(myparms);
fingerWidth = 1;
z = [1 -1 1/4];
g0 = [0 0.5 pi/6];
T0 = 0; Tfinal = 4;

[t, z] = ode45(@HW6prob7func, [T0 Tfinal], g0);
a2 = z(:,1); a3 = z(:,2); a4 = z(:,3);
dtNow = t(2) - t(1);

for ii = 1:5          % Send several commands until it listens.
    pikh.gotoSleep(); % Usually responds by third command.
    pause(0.05);
end
pause(1);
pikh.gotoHome();      % Send it to the home position.

disp('At home position, press return to start ...');
pause();

for ii = 1:t          % Run the routine.
    pikh.setArm(alphaNow, dtNow*1.1);
    pause(dtNow);
    alphaNow = [1; a2(ii); a3(ii); a4(ii); 3/4];
end
disp('Done, shutting down.');
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alpha_fk = [1.2; 30; -60; -10; 0.75];

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pikh.setArm(alpha_fk);
disp('Done, hit return to end.');
```

pause();

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pikh.gotoSleep();      % Go to sleep,
pikh.shutdown();      % then shutdown.

end

fnames =

    3x1 cell array

    'alphaLims'
```

```
'musecLims'
'alphaOrient'

ans =

    logical

    0

Error using fprintf
Invalid file identifier. Use fopen to generate a valid file
identifier.

Error in piktul/setArm (line 239)
    fprintf(this.serialid, cmdstr);

Error in piktul/gotoSleep (line 164)
    this.setArm(this.alphaSleep, time);

Error in HW6prob7 (line 20)
    pikh.gotoSleep();           % Usually responds by third command.

Published with MATLAB® R2017a
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