movtoCAng

Move the Herkulex motor to the desired angle

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Syntax

```
movtoCAng(sObject,pID,CAng, varargin)
```

Description

movtoCAng(sObject,pID,ang) moves the Herkulex motor to the desired angle. Note that the angle provided is the calibrated angle.

- This function is intended for single motor control only.
- Default playtime value: 60 (60*11.2ms = 672ms)
- greenLED is on during process to show non-error status.

Input Arguments

- sObject - serial port object
- pID - integer
- CAng - double
- varargin - integer

Function Codes

```matlab
function movtoCAng(sObject, pID, CAng, varargin)



    % Setting default playtime

    if nargin == 3

        playtime = 672/11.2;    % Default playtime value 672ms/11.2ms = 60

        pTime = dec2hex(int64(playtime),2); % Convert value to hex for packet
```

```matlab
    elseif nargin == 4

        V = cell2mat(varargin);   % Convert varargin into number

        playtime = V/11.2;   % Convert into value

        pTime = dec2hex(int64(playtime),2);

    else

        error('Please input only 3 to 4 arguments!');

    end



% Convert value into angle

CVal = fix(512+(CAng/0.325));



% Check input value

checkCVal(sObject,pID,CVal);



% Convert values into hex for packet

% Byte in reverse order by Little Endian Order

pos = dec2hex(CVal,4);

pos = strcat(pos(3:4),pos(1:2));



% Construct packet

data = strcat([pTime,pos,'04',dec2hex(pID,2)]); % 0x04 for green LED

packet = pkGen(pID,06,data);     % CMD = 0x06 (S_Jog)
```

```matlab
    inHkx(sObject, packet);



    % Wait for the operation to complete

    pause(1);



    % Confirm end position

    CPos = getCPos(sObject,pID);

    CAng = fix((CPos-512)*0.325);

    fprintf('Moved to calibrated angle %d\n', CAng);

end
```