

HCCs ADVANCED TOPICS

AUTUMN TERM 2006

Week 3 Readings – Ubicomp toolkits

Rationale: The aim this week is to introduce you to the Phidgets toolkit you will be using in your group project. If you have good technical skills, you might also be interested in using the ECT toolkit in conjunction with Phidgets. The background areas of ubiquitous computing, tangible interfaces and toolkits are all important for underpinning your project work in this class.

Procedure: The first half of the class will be spent talking about the slide examples you found interesting (see 1 below) and giving an introduction to the phidgets toolkit (see 2 below). The second half of the class will be a hands-on phidgets tutorial. You will need to work in groups for this.

Work to be done before class

1. Look at these slides, pick one of the examples and find out more about it [ALL].

Saul Greenberg's slides on 'Getting Physical' for a broad introduction

Available from <http://hcc.cc.gatech.edu/taxonomy/docInfo.php?cat=82&doc=58>

[warning – 9Mb file]

2. Read this paper [ALL].

Greenberg, S., and Fitchett, Chester (2001) Phidgets: Easy Development of Physical Interfaces through Physical Widgets. In *Proceedings of ACM symposium on User interface software and technology (UIST 2001)*, Orlando, Florida, ACM Press, pp 209-218.

<http://portal.acm.org/citation.cfm?id=502388&jmp=cit&coll=ACM&dl=ACM&CFID=29080518&CFTOKEN=28022349#CIT>

Additional resources

- Have a look at the Gallery via <http://grouplab.cpsc.ucalgary.ca/phidgets/> - especially <http://grouplab.cpsc.ucalgary.ca/phidgets/gallery/> for videos of other student *phidgets project* work
- For people who have more of a *technical background*, read about the Equator ECT toolkit: www.equator.ac.uk/technology/ect and there is a tutorial on ECT: http://equip.sourceforge.net/ect/java/docs/user/current/ECT_Webstart_User_Guide.html
- This is a rather short paper and shows a nice user-centred process for getting understanding/inspiration, leading to design ideas...it might help in how you approach your own project
 - o Wensveen, S., Overbeeke, K, Djajadiningrat, T. (2000) Touch Me, Hit Me and I Know How You Feel: A Design Approach to Emotionally Rich Interaction. *Proc. of DIS 2000* pp. 48-52

<http://www.itproducts.sdu.dk/djajadiningrat/publications/00WensDisTouc.pdf>

- If you are keen, you can also start looking at *tangible computing* work – this is also highly relevant to your projects, e.g.,
 - <http://www.ehornecker.de/Tangibles.html> - this has many links to work around tangible interface issues