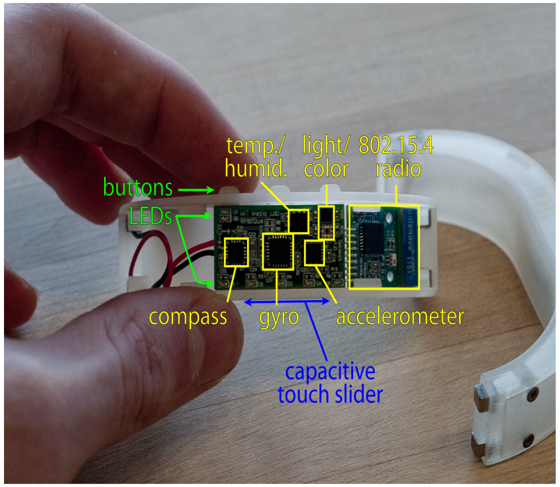
Nan Zhao
MIT Media Lab
Responsive Environments Group

Lighting control is broken

WristQue: A personal sensor wristband

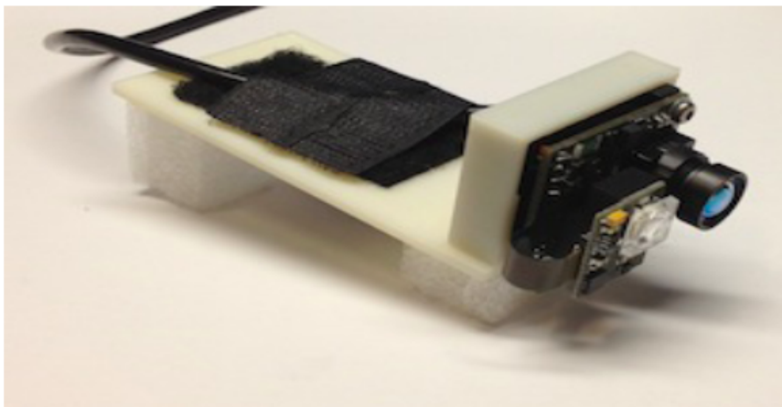


Brian Mayton at al.

Publication:
B. Mayton et al, "WristQue: A personal sensor wristband," in Proc. BSN 2013


MOTION
tracking
HGTV Remod

EMGRIE: Ergonomic Micro-Gesture Recognition and Interaction Evaluation




David Way

Publication:
D. Way & J. Paradiso, "A Usability User Study Concerning Free-Hand Microgesture and Wrist-Worn Sensors", to be presented at BSN 2014

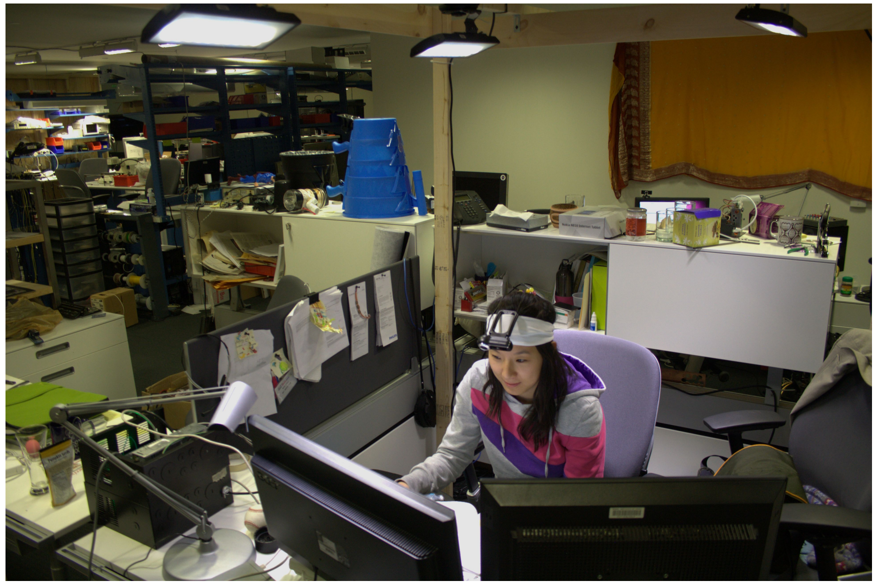
1) Low-power; sensors use 61 uW

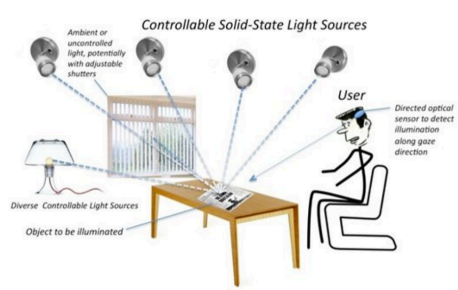
2) Always-available; one-hand input

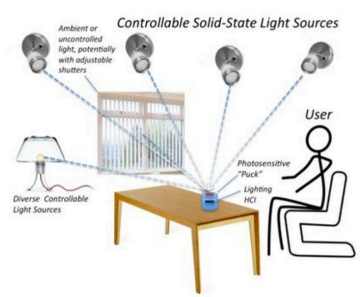
3) Small; can be integrated into wristwatch

Publication:
Dementyev & Paradiso, "WristFlex: Low-Power Gesture Input with Wrist-Worn Pressure Sensors," to appear in UIST 2014

Adaptive Lighting



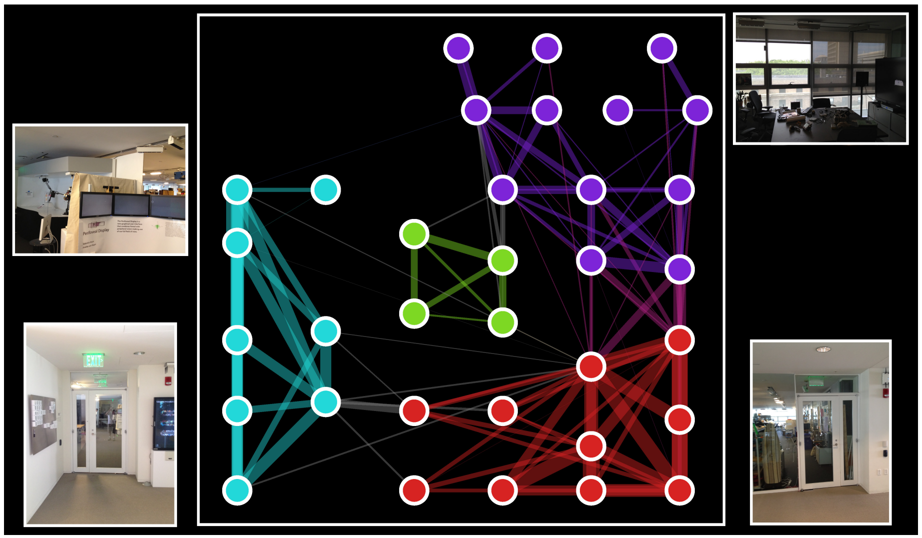


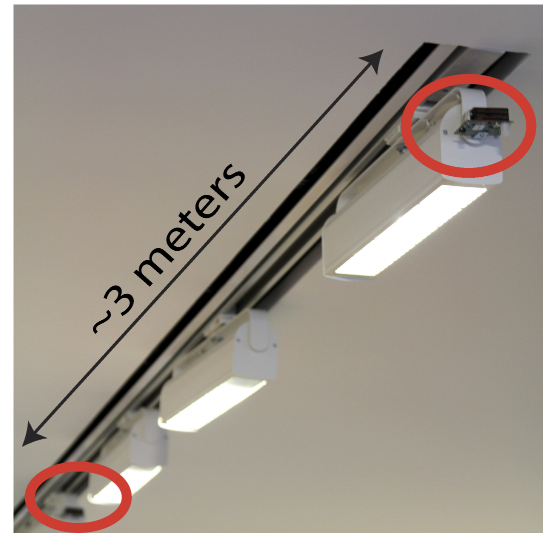


Publication:
M. Aldrich et al, "Energy Efficient Control of Polychromatic Solid-State Lighting Using a Sensor Network," Proc. SPIE 2010

Nan Zhao at al.

Random Walk and Lighting Control

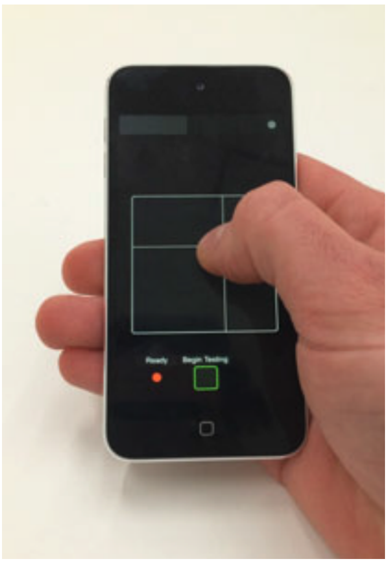


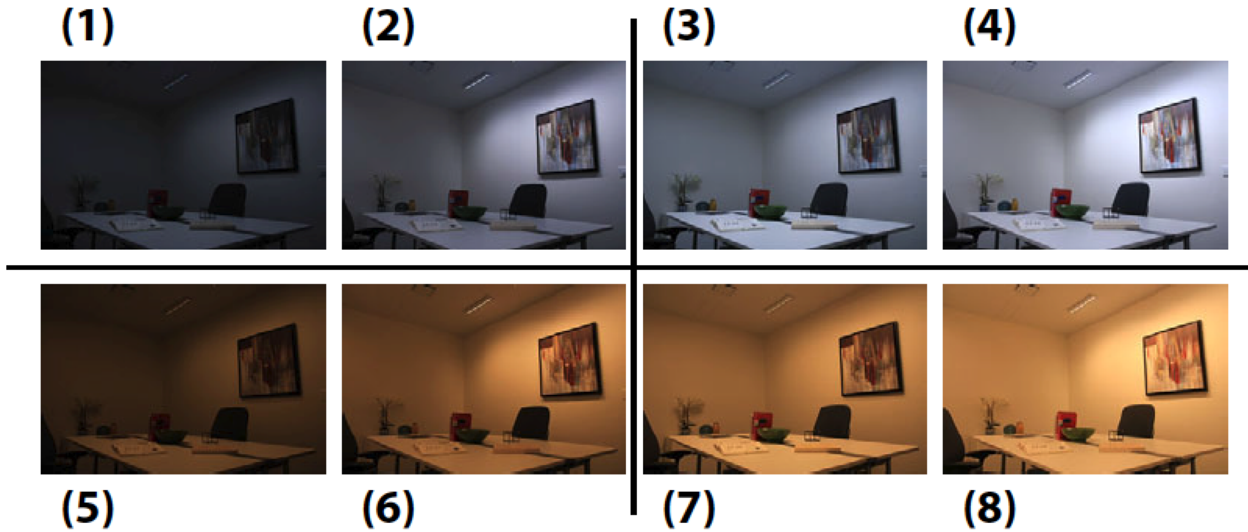


Matt Aldrich at al.

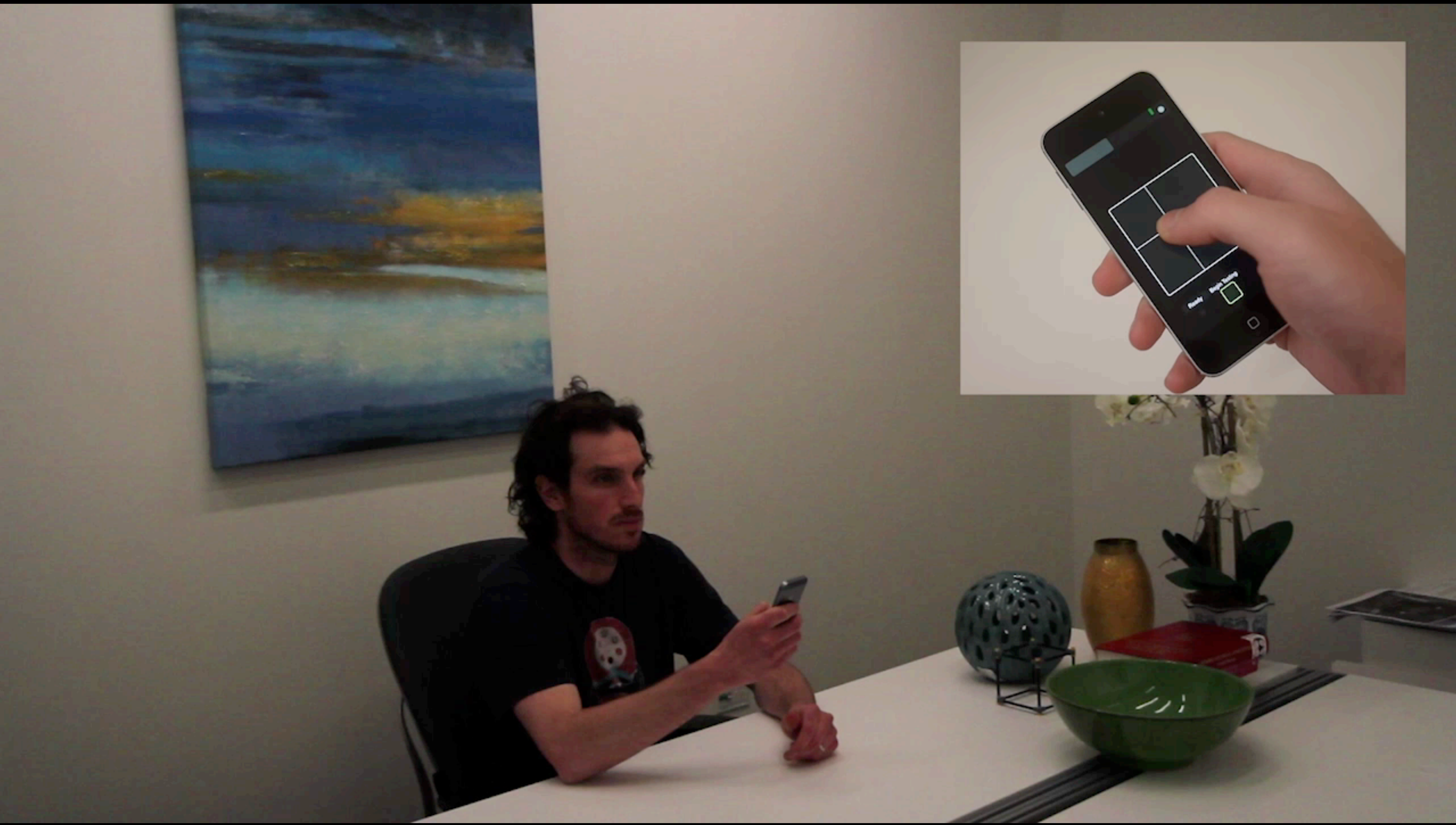
Publication:
Aldrich, M., Badshah, A., Mayton, B., Zhao, N., and Paradiso, J.A., "Random Walk and Lighting Control," IEEE Sensors 2013

Lighting control axes





Matt Aldrich at al.



Matt Aldrich at al.

What if lights could move with us?

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Thank You