Hooking up Pixy to a Raspberry Pi

Introduction

The following procedure outlines the steps required to build the 'hello_pixy' example on a Raspberry Pi.

Prerequisites

#1. Raspberry Pi has RASPBIAN (version June 2014) installed.
#2. The Raspberry Pi is connected to the internet.

Procedure

#1. Install library dependencies: libboost and libusb

In a terminal window enter:

```
# sudo apt-get install libboost-all-dev
# sudo apt-get install libusb-1.0-0.dev
```

#2. Download the pixy source code:

In a terminal window enter:

```
# git clone https://github.com/charmedlabs/pixy
```

#3. Build libpixyusb and the hello_pixy example:

In a terminal window enter:

```
# cd pixy/host/libpixyusb
# ./configure
# make
```

#4. Copy pixy.rules to /etc/udev/rules.d/

In a terminal window enter:

```
# cd ../../../
# sudo cp pixy/host/linux/pixy.rules /etc/udev/rules.d/
```

#5. Connect Pixy to the Raspberry Pi using a USB cable.

#6. Run 'hello_pixy'.

In a terminal window enter:

```
# cd pixy/host/libpixyusb
# ./hello_pixy
```

Output

The output should look like something below:

```
Hello Pixy: libpixyusb Version: 0.1
[sig: 2 w:232 h: 74 x:204 y: 37]
[sig: 2 w: 37 h: 8 x:301 y: 95]
[sig: 2 w: 9 h: 4 x: 40 y: 39]
[sig: 2 w: 8 h: 12 x:316 y:113]
[sig: 2 w:237 h: 88 x:201 y: 44]
[sig: 2 w: 18 h: 9 x:311 y:122]
[sig: 2 w: 11 h: 11 x:314 y:100]
[sig: 2 w: 15 h: 6 x: 40 y: 40]
[sig: 2 w:240 h: 82 x:200 y: 41]
[sig: 2 w: 26 h: 30 x:307 y:116]
[sig: 2 w: 18 h: 10 x: 39 y: 40]
[sig: 2 w: 12 h: 1 x:310 y: 91]
[sig: 2 w: 13 h: 2 x: 44 y: 4]
```