Raspberry Pi First-Time Hacker Day

University of Sheffield, Department of Computer Science / Access Space

James Wallbank, Hamish Cunningham, October 2rd 2013. For more go to: Pi.GATE.ac.uk or raspberrypi.org.

Getting Started

Take the Pi out of its box and plug it in following the instructions on the "Quick Start Guide". To log in: user = pi, user = raspberry.

Singing Jelly Baby

First shut down you Pi and build the circuit (see below), then do this stuff from the "command line":

```
1. create a work directory
```

```
• mkdir work
```

o cd work

2. install Wiring Pi

```
\circ wget -O wp.deb -r tinyurl.com/wiringpi
```

o sudo dpkg -i wp.deb

3. get the code

```
• wget -0 jb.sh -r tinyurl.com/pijellybaby
```

o chmod +x jb.sh

4. get the sound effects

```
• wget -O police.wav -r tinyurl.com/policewav
```

5. run the thing

```
o sudo ./jb.sh
```

This example uses Shell Script:

```
#!/bin/bash
sudo amixer cset numid=3 1
gpio mode 8 up

while :
do
   if [ `gpio read 8` = 0 ]
   then
      echo "time to sing!"
      aplay police.wav &
   fi
   echo "time to sleep..."
   sleep 1
done
```

Traffic Lights

See below...

Stay Safe!

You must change the password on the Pi next time you start up...

Keep in touch...

The Department of Computer Science: http://shef.ac.uk/dcs

Access Space:

http://access-space.org/

Pi GATE: http://pi.gate.ac.uk/





