RabbitMax 1
Modular IoT HAT for Raspberry Pi

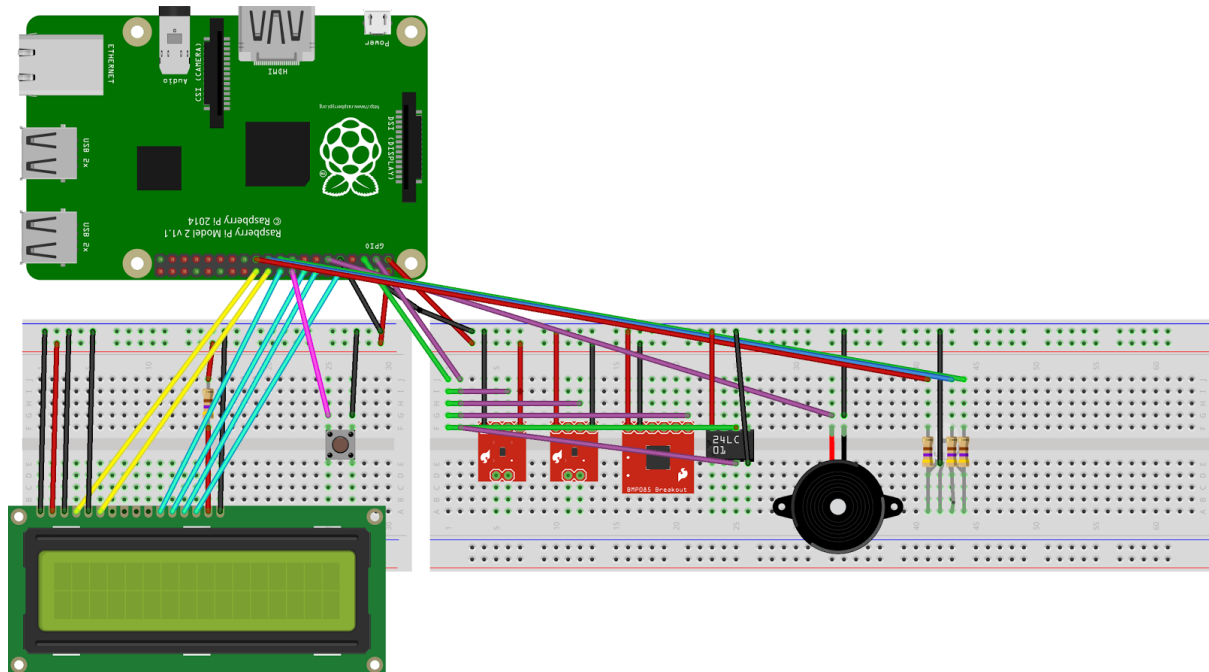### 1. Specifications:

1x Piezo buzzer

1x RGB LED

1x Relay

1x "Push to make" button

1x IR receiver

1x IR transmitter

1x CAT24C32 EEPROM

3x 4 female pin headers for attaching i2c sensors (the sensors are not part of the HAT)

1x 16 female pin headers for attaching 1602 (or 2004) LCD character display (the display is not part of the HAT)

2. Size:

65x56mm

3. Sketch (work in progress, so far without IR and relay):

fritzing

4. Sensors

Up to 3 of them will be attach as separate and pluggable modules to female pins for i2c on the HAT:

    4.1.   HTU21D - temperature and humidity

4.2.   TSL2561 - light
4.3.   BMP280 - barometric pressure
4.4.   BMP180 - barometric pressure
4.5.   HMC5883L - digital compass

5. Resources:

https://www.raspberrypi.org/blog/introducing-raspberry-pi-hats/
https://github.com/raspberrypi/hats
https://www.raspberrypi.org/documentation/usage/gpio-plus-and-raspi2/
https://www.raspberrypi.org/magpi/make-your-own-hat/
http://openfet.com/2015/12/24/kicad-how-to-design-a-raspberry-pi-hat-in-10-minutes/
http://www.instructables.com/id/Design-a-Raspberry-Pi-Hat-KiCad/
https://github.com/xesscorp/RPi_Hat_Template
https://forum.kicad.info/t/raspberry-pi-b-hat-template/738/35