



INSTRUCTIONS:

BLIDGETS (BETA)

WIRELESS ULTRA-LOW POWER
PROTOTYPING PLATFORM BASED ON
BLUETOOTH LE



1. BLIDGETS

A *Blidget* device is a tiny, wireless, ultra-low power prototyping platform for the creation of smart objects and environments that can run up to a year on a coin-cell battery. It provides 18 general purpose input output ports (GPIO) for connecting sensor and actuators. Extensions can be vertically stacked or horizontally chained resulting in a very small footprint or a flat layout. Blidgets can be pinned on a bread board, installed in the environment or be worn by users (e.g. as key fob). They can be fully controlled through a web based IDE which allows to write program logic using JavaScript. A control App for Smartphones is currently in development.

So far, we provide the following stackable extensions:

- micro-USB power module (+LiPo charger)
- USB power module (+LiPo charger)
- .NET Gadgeteer modules adapter
- Xadow adapter module
- Joystick module
- Lightsensor module
- Accelerometer / Gyro module
- Notification module (RGB LED, vibrator, piezo)
- Potentiometer module
- Button module

2. PREPARATIONS

1. Connect to the “mesch-ustutt” WiFi (Password: “mesch...”)
2. Start up <http://rpi3> in your Chrome browser.
3. Get a Blidget and turn it on (after turning on the LED blinks twice)
4. Your Blidget should appear in the web IDE. Double click to connect to your Blidget and wait until it turns green.
5. Pin your Blidget onto a breadboard and start connecting sensors, actuators or extension modules
6. Configure and control the ports
7. Please ask your instructor for further details.
8. What can you build by meshing up multiple Blidgets? Have fun!

9. RESOURCES

- Blidgets: <http://blidget.hcilab.org>