

0. What you need?

This section covers all the materials to assemble the SpiderClip Prototy 1. You will need various hardware components, a 3D file print file and various software components.

Hardware

Components:

- Arduino Nano Every
 - DEBO SENS 3AXIS MPU-6050 (Gyroscope/Accelerometer)
 - ARDUINO HC-05-4 (Wireless Module)
 - Sparkfun Pulse Oximeter and Heart Rate Sensor
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3D Printing:

LINK-Download-File

VR-Setup (HTC Vive)

- HTC Vive HMD
- 2 Basestations
- HTC Vive Tracker 2.0 (2018)
- or HTC Vive Tracker 1.0

For Unity

Vor der virtuellen Watch benötigst du das SteamVR Plugin:

<https://assetstore.unity.com/packages/tools/integration/steamvr-plugin-32647>

Unity VR-Watch:

Für die das VR-Wearable benötigst du diesen Link zum Download des SDKs:

https://github.com/D-Queck/VR_Wearable_SpiderClip

Software Libraries

I. For Arduino:

1. Before the code runs some libraries have to be downloaded.

```
<Adafruit_MPU6050.h>
<Adafruit_Sensor.h>
<SparkFun_Bio_Sensor_Hub_Library.h>
<Wire.h>
```

2. Then you can download the code from GitHub

https://github.com/D-Queck/SiderClip_Sensor
- Sparkfun Pulse Oximeter and Heart Rate Sensor

II. For PC/Mac:

Before the Unity implementation you need the NuGet package System.IO 4.3.0 or newer. Here is the link to download it:

https://github.com/D-Queck/SiderClip_Sensor
- Sparkfun Pulse Oximeter and Heart Rate Sensor
