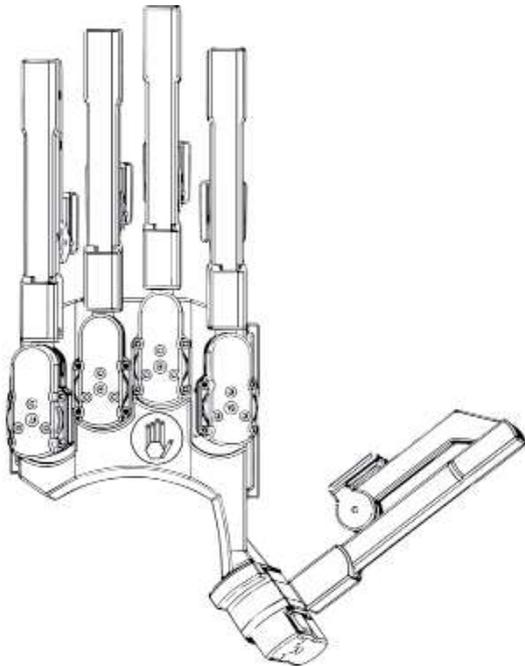




SENSEGLOVE

Getting started with the SenseGlove DK1



November 2019 (v.1.3h)

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Disclaimer

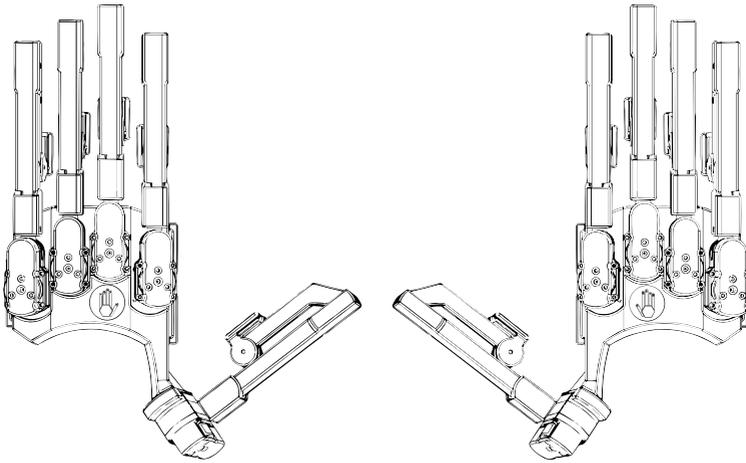
The SensGlove Developers Kit 1 (DK1) is a prototype and not certified. SenseGlove or its related companies cannot be held liable for damages caused by the SenseGlove DK1. In using the SenseGlove you accept all risks and liabilities. The user is advised to follow the 'getting started guide'.

It is particularly important to use the USB cables provided since they withstand the power consumption of the SenseGlove.

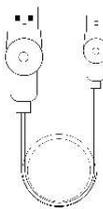
We mention the HTC Vive tracker in this manual, therefore, it should be noted that, HTC and Vive are trademarks or registered trademarks of HTC Corporation and its affiliates in the U.S. and other countries.

What's in the box

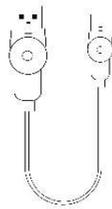
The schematics below gives the items you find inside of the box. Underneath the LinkBox you can find the required accessories.



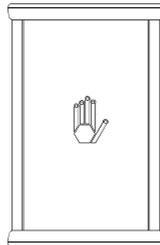
SenseGloves
(left and right)



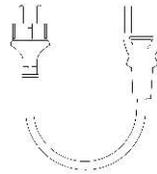
2x 3m (10ft)
USB cable



1x 2m (6.5ft)
USB cable



1x
SenseGlove
LinkBox



1x Power
cable



2x HTC Vive
tracker
mount



2x Screw
(1/4-20UNC)
for mounting
the HTC Vive
tracker on the
adapter

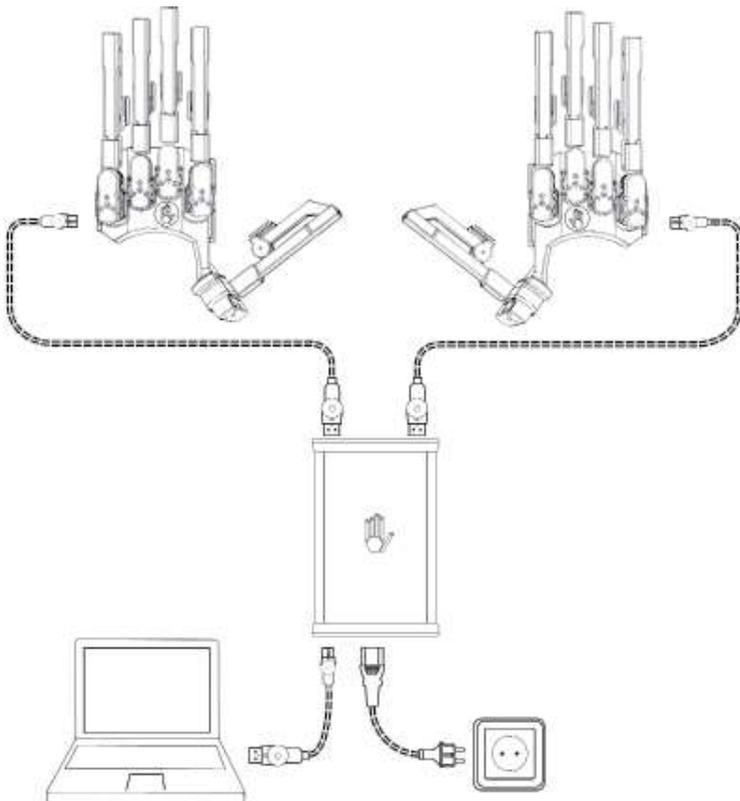


2x Screw (M3
6mm, T10) for
mounting the
adapter on the
SenseGlove

Setup a SenseGloves pair

The schematic below gives a correct SenseGlove setup. What you need are:

- SenseGlove pair
- LinkBox
- Two long (3m / 10ft) USB cables
- One short (2m / 6.5ft) USB cable
- Power cable





Step 1: Connect the LinkBox to the power. Install the power cable in the LinkBox. Put the other side of the power cable in a power socket (100-240V, 50-60Hz). If connected correctly, the Blue LED on the LinkBox lights up.

Step 2: Connect the LinkBox with a computer. Install the short USB cables with the micro USB into the LinkBox. The other side of the short USB cable should be connected to USB ports on a computer.

Step 3: Connect the SenseGloves to the LinkBox, with the two long USB cables. The micro USB plug connects to the SenseGlove and the other side of the cable is connected to the LinkBox.



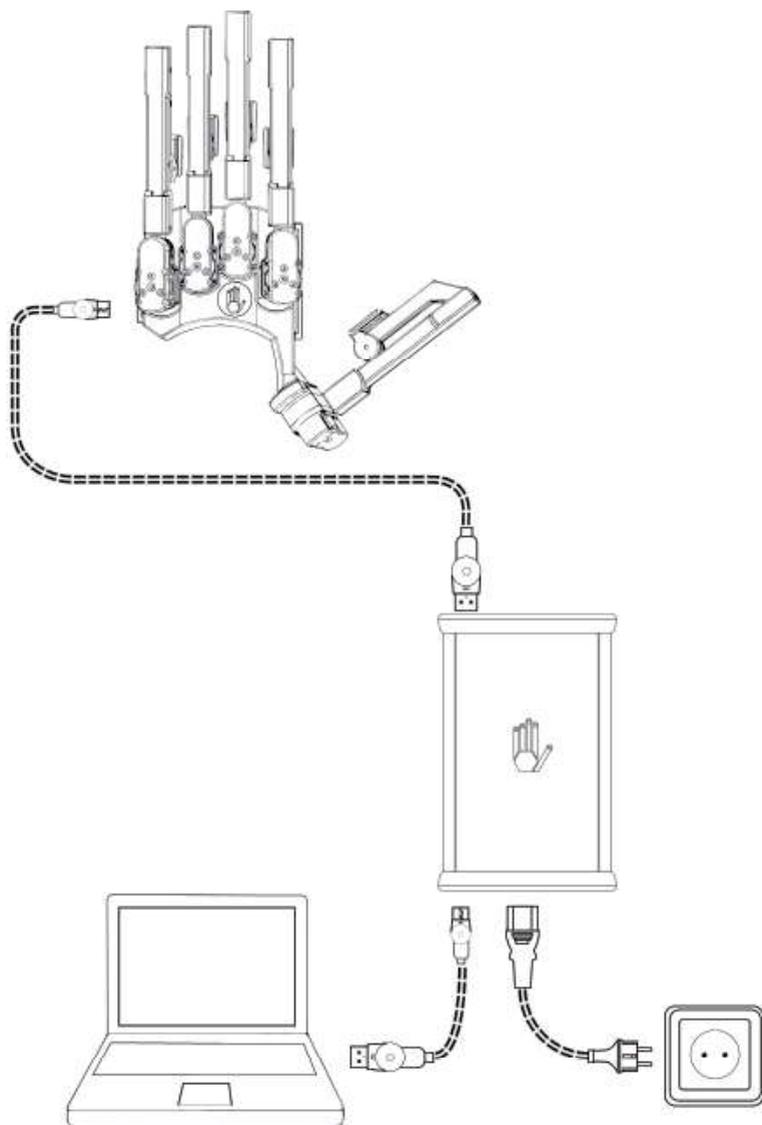
Warning: *Only use the provided USB cables to connect the SenseGlove. The provided USB cables withstands the power consumption of the SenseGlove, regular USB cables might not.*

Setup a single SenseGlove

The schematic on the next page shows how to setup the SenseGlove. What you need are:

- SenseGlove
- LinkBox
- One long USB cable
- One short USB cable
- Power cable

If you use only one SenseGlove in your project, you can follow the steps as indicated on the previous page, using only one SenseGlove.





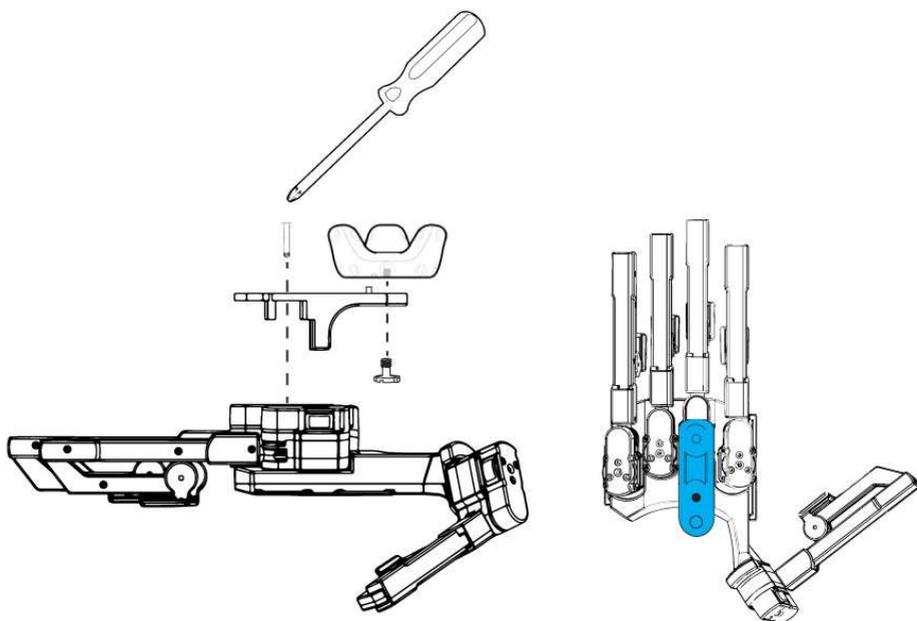
Mounting an HTC Vive tracker to the SenseGlove

An HTC Vive tracker can be mounted on the SenseGlove using the supplied mount. The schematic on the next page shows the way to install the HTC Vive tracker on the SenseGlove. What you need are:

- SenseGlove
- Tracker mount
- Screw 1/4-20 UNC threaded mount
- Screw M3, 6 mm (T10)
- Screw driver Torx 10 (not provided)

Step 1: Attach the HTC Vive tracker to the mount using the 1/4 inch UNC screw.

Step 2: Place the mount with attached tracker on the SenseGlove corresponding to the middle finger, and attach it with the M3 screw.





How to wear the SenseGlove

The SenseGlove is best installed on a hand as described below. In addition, the schematic on the next page shows how it is done.

Step 1: Place the SenseGlove on your hand. Orient the SenseGlove so that the palm is facing upwards. You can rest the SenseGlove on a table or in your other hand. Place your hand, with the palm side up, under the Velcro straps so that the thumb is positioned between both straps.

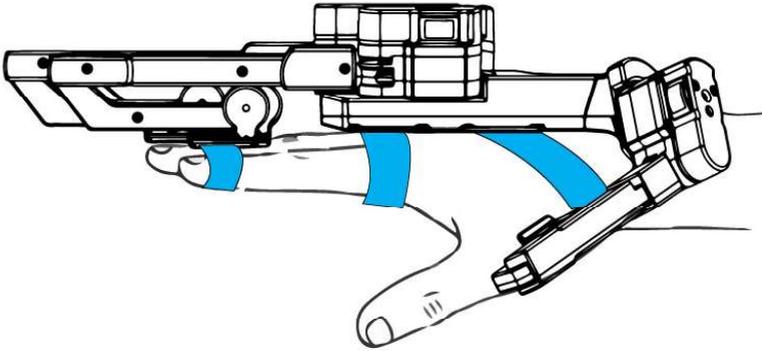
Step 2: Tighten the two Velcro straps to fix the SenseGlove on the palm of the hand. Do not fix it too tight.

Note: *It is best to leave the Velcro attached on the attachments used for both straps. Adjusting the Velcro is best done on the side with separate Velcro attachments.*

Step 3: Attach the SenseGlove to your fingertips, by placing your fingers inside the finger straps. Make sure the straps are attached to the fingertips (the distal phalanx). Tighten the straps.



SENSEGLOVE



Getting started with your first project

Now that you have setup the SenseGlove you are ready to use it! The only thing you need is the Software Development Kit (SDK) for Unity. The SDK includes a few example projects you can use to try your SenseGlove. You can download the SDK and its documentation here:

<https://github.com/Adjuvo/SenseGlove-Unity>

How to contact us

If you experience problems or if you have questions, please contact us. For questions or concerns, contact:

- +31 6 4098 8831
- helpme@senseglove.com



Specifications

Features	Specs
Motion Capturing	<ul style="list-style-type: none">- 9-axis absolute orientation sensor in the wrist.- 20 rotation sensors in the exoskeleton linkages corresponding with each joint in the hand.
Force Feedback	<ul style="list-style-type: none">- 5 proprietary passive force feedback modules delivering a maximum force of 40N in extension direction at the fingertips- A force resolution with an average of 0.4N per programmable step.
Haptic Feedback	<ul style="list-style-type: none">- 5 haptic motors of max 0.8G located in each fingertip.- 1 haptic actuator for impact simulation of 7.3G located in the palm hub of the SenseGlove.



Power Consumption	<ul style="list-style-type: none">- A maximum peak current draw of 2.8A per SenseGlove.- In average use a 1.5A per Sense Glove.- Without any feedback the current draw is 0.18A per SenseGlove.
Communication	<ul style="list-style-type: none">- USB serial communication: A limited 100hz refresh rate guaranteed.
General	<ul style="list-style-type: none">- Weight: ~300g (10.6 oz) per glove.- Size: L 250mm x W 140mm x H 50mm.
Positional Tracking	<ul style="list-style-type: none">- Motion capturing delivers accurate finger tracking. For tracking of the forearm in the Cartesian space an external system is required, e.g., the HTC Vive Steam VR tracker (not part of a SenseGlove set).