Welcome!

Welcome to VISCompass , the free app that turns your iPhone into an audiocompass. Its aim is to empower visually impaired crew to helm a cruising boat on a preset course, or turn, or tack it in moderate coastal sailing conditions under the guidance of a qualified sighted skipper. It doesn't replace any of the skipper's safety responsibilities for the vessel and its crew, and he or she will normally set up the hardware on the boat and input the course information which VISCompass then helps the visually impaired crew to steer to. If the weather conditions are favourable, this introduction can also lead (with appropriate coaching and support) to more independent forms of helming by visually impaired sailors, for example, steering to the wind.

The smartphone (protected by a suitable case if conditions require it) must be mounted screen up and facing forwards. It should be attached firmly to the vessel by Velcro, gaffer tape or a phone-mount close to your helming position and where the skipper can readily operate it, but away from any large metallic objects (such as the ship's compass) that cause magnetic interference. Your standard earphones may need a cheap (say 1 meter) extension lead to be comfortable, plus if VISCompass is run over a prolonged period, a car-phone charge lead into the boat's 12V electric supply. The app overrides any sleep setting on your phone so note that VISCompass carries on working (and using battery) until you close it. Incoming calls/texts etc aren't muted though, so setting them to voicemail or setting the phone to airplane mode is a good idea! Headphone "beep" volume is also set via the volume controls on the phone.

The Interface

The VISCompass screen contains the following features intended to be operated by the skipper:-

At the top is displayed the current compass heading of phone, which is also (if fixed on centreline) that of the vessel measured in degrees true. (VISCompass uses the phone's inbuilt compass, not its GPS or gyro capabilities. Hence mobile cell coverage is unnecessary for VISCompass' full functioning). Next to the heading number is a touch on/off switch for the on-course drumbeat function described below.

Next down is the slide on/off switch. When switched on VISCompass navigates to the instantaneous heading of the phone/vessel on switch-on. This course is the number displayed below the slider switch which can then be changed using the red and green buttons.

The larger number next down is the current off course angle, as soon as navigation is underway, with the corresponding pointer direction next to it -showing the helming direction required to stay on course. The earphones covey this information to VIcrew via audio beeps . Higher pitched beeps (a bit like a chicken!) mean turn to starboard, and lower pitched beeps (a duck?!) mean turn to port. The faster the beeps, the more turning is necessary to get back

on course. When you are on course by plus or minus the tolerance level (see below), you hear a reassuring slow drumbeat.

The two touch-selected ranges at the bottom of the screen customize VISCompass' performance according to sea and vessel conditions. The QQ to SS range selects VISCompass "Sensitivity", and the bottom range "Tolerance" sets (with the + and – buttons) the off-course angle beyond which VISCompass starts to emit chicken or duck audio feedback!

In addition to the above functions, sliding sideways the red port or green starboard buttons resets the desired course by 100 degrees – thus acting as a "tack function".

VISCompass can be used anywhere – in and out of mobile phone range, and on or off the water. Getting to know it , by walking round a safe outdoor space can be a great preparation for its use at the helm! Try holding your course for 10 seconds then executing, say, a starboard tack, as you walk round a safe and open area of grass.

VISCompass Status

The VISCompass app was developed by IT professionals and sailors giving freely of their time, and is made available to the visually impaired sailing community UK and worldwide free of charge. It may not be integrated into other software or hardware, rebranded, modified, or remarketed without the express consent of the developers.

VISCompass is still in development, and there are many further potential enhancements to its functionality which would broaden the sailing experience of visually impaired crew. For example, there is the potential of voice synthesized communication of navigation data (such as boat and wind speed and direction) using data transmitted wirelessly from the vessel's navigation instruments (typically running NMEA). It is also envisaged that a more user friendly front end/welcome sequence for VISCompass will be developed, probably available on an audio channel as well as on screen.

Hence the developers would welcome any feedback for users of the current version of VISCompass , and any contact with organisations or businesses interested in partnering the further development of the app. Please do so by email to mail@willbridge.com.

Proper use of VISCompass

VISCompass does not in any way reduce or replace the skipper's responsibility for the safe conduct of the vessel in which the app is used. He / she should make the decision as to the appropriateness of the app's use in any given situation, and ensure it is thoroughly commissioned and monitored in use. The developers accept no liability whatsoever for accidents or incidents which take place on vessels on which VISCompass is in use.