



## Fling Joystick Developer Guidelines

Fling and Fling mini are designed to add tactile controls to iOS hardware and other touch devices. Used with a well-designed virtual joystick, it can offer impressive control and better player immersion in your title. If your app already has an on-screen joystick, little or no change may be needed. Any questions about this document or cross-promotion opportunities may be directed to [info@tenonedesign.com](mailto:info@tenonedesign.com).

### Joystick Location

We recommend using an on-screen joystick control that will automatically center itself under Fling controller. This allows easy attachment without requiring the user to align Fling over the joystick. If this is not the best solution for your title, a fixed joystick control following the dimensional guidelines shown below will also work. Allowing the user to relocate the controls is always recommended.

For larger devices such as an iPad, allowing joystick control in the upper half of the display can often increase player comfort, allowing fingers to naturally support the weight of the device.

During gameplay, it is safe to assume the first touch provided by Fling is located at the center of the Fling joystick range. This is the best time to re-center the on-screen joystick under Fling.

### Joystick Size

The maximum joystick range should fall within Fling's touch maximum range as shown below. Control sensitivity may be set to taste. When Fling is attached, more sensitive controls are possible. However, there is no good way to detect Fling on the iPad surface, so be careful not to make the controls unusable without Fling.

To accommodate smaller screens, the maximum range of Fling mini is approximately 15% smaller than Fling.

If your title can support a more involved control system, we always recommend reading the vector output of the control (direction + magnitude) rather than just the direction. The magnitude can be used for example to differentiate a "walk" action from a "run" action on the basis of the distance moved from the center point.

Please ensure the full range of your joystick control is easily reached without too much effort. If running is a common activity, make it easy to run.

## Compatibility

Gamers will want to know if your app is compatible with Fling (and officially licensed Fling-compatible joysticks from other manufacturers). The best way to indicate compatibility is with the phrase, “**Fling compatible. Learn more about Fling at <http://tenonedesign.com/fling>**” placed near the end of your description. To further increase the exposure of your app, we recommend using “**fling**” as one of your metadata keywords. Learn more about keywords here (requires developer login): <https://developer.apple.com/appstore/resources/marketing/#keywords>

Fling compatible developers are encouraged to display the Fling compatible badge. You are authorized to place this logo on your website, on the screenshots used in the App Store, or in directly in your App. Please refrain from using the badge for any other purpose.

Download the official Fling and Fling mini compatible badge hi-res files at <http://db.tt/gw3R40b>.

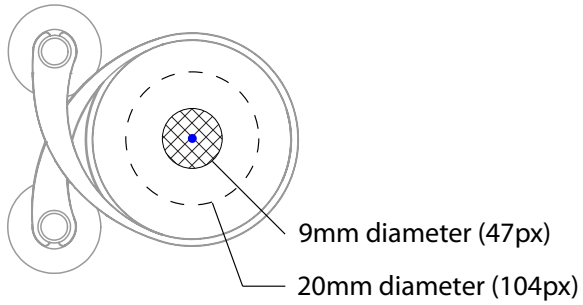


## How Fling Works

Fling acts as a bridge between the user’s thumb and the iPad screen. Although the center of Fling stays in contact with the display, it will not activate until touched by the user. While controlling a game with Fling, it pushes gently back on the thumb towards the center position. This haptic feedback guides and stabilizes gameplay, allowing for greater accuracy.

## Fling for iPad Dimensional Specifications

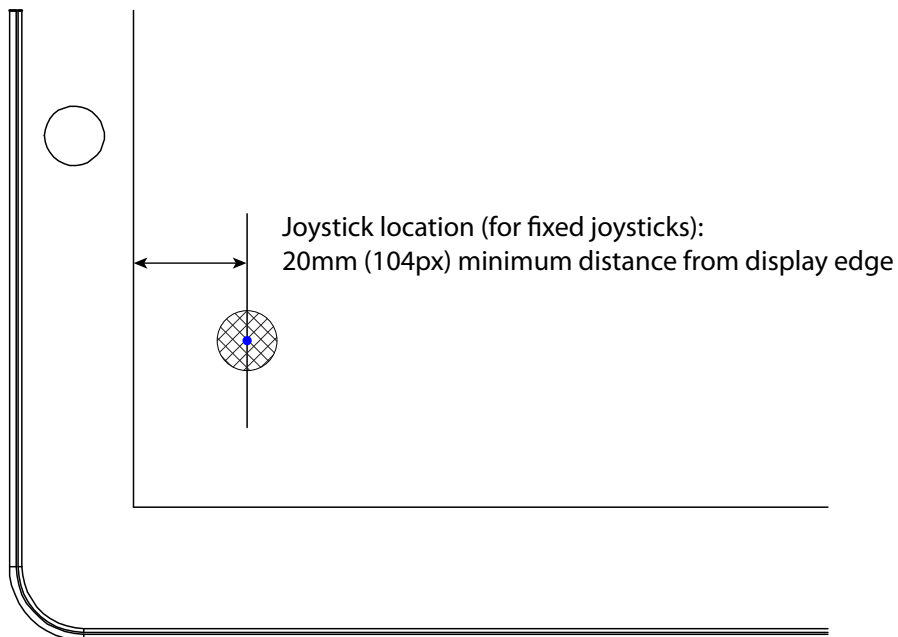
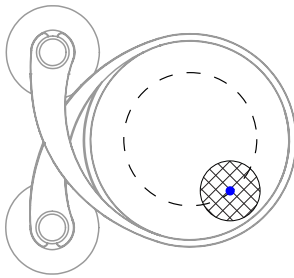
Rest Position



Key:

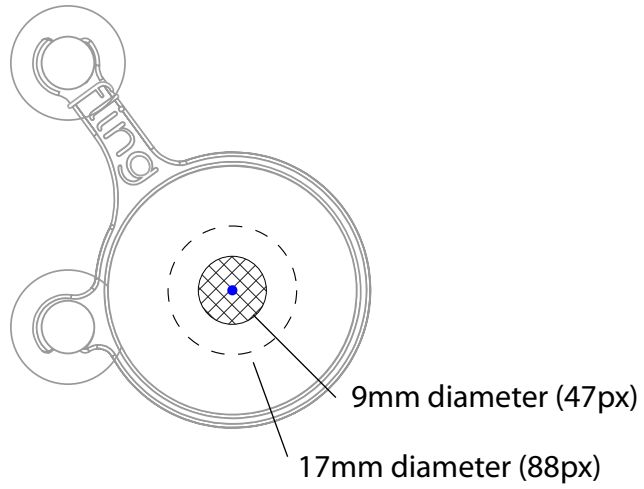
- Detected Location
- ⊗ Fling Touch area (9mm/47px diameter)
- ⊖ Touch maximum range (20mm/104px diameter)

Full Extension

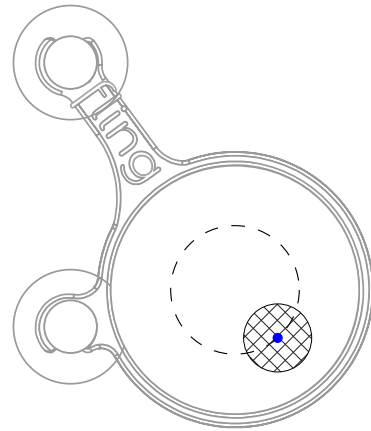


## Fling mini Dimensional Specifications

Rest Position



Full Extension



Key:

- Detected Location
- ⊗ Fling Touch area (9mm/47px diameter)
- ⊖ Touch maximum range (17mm/88px diameter)