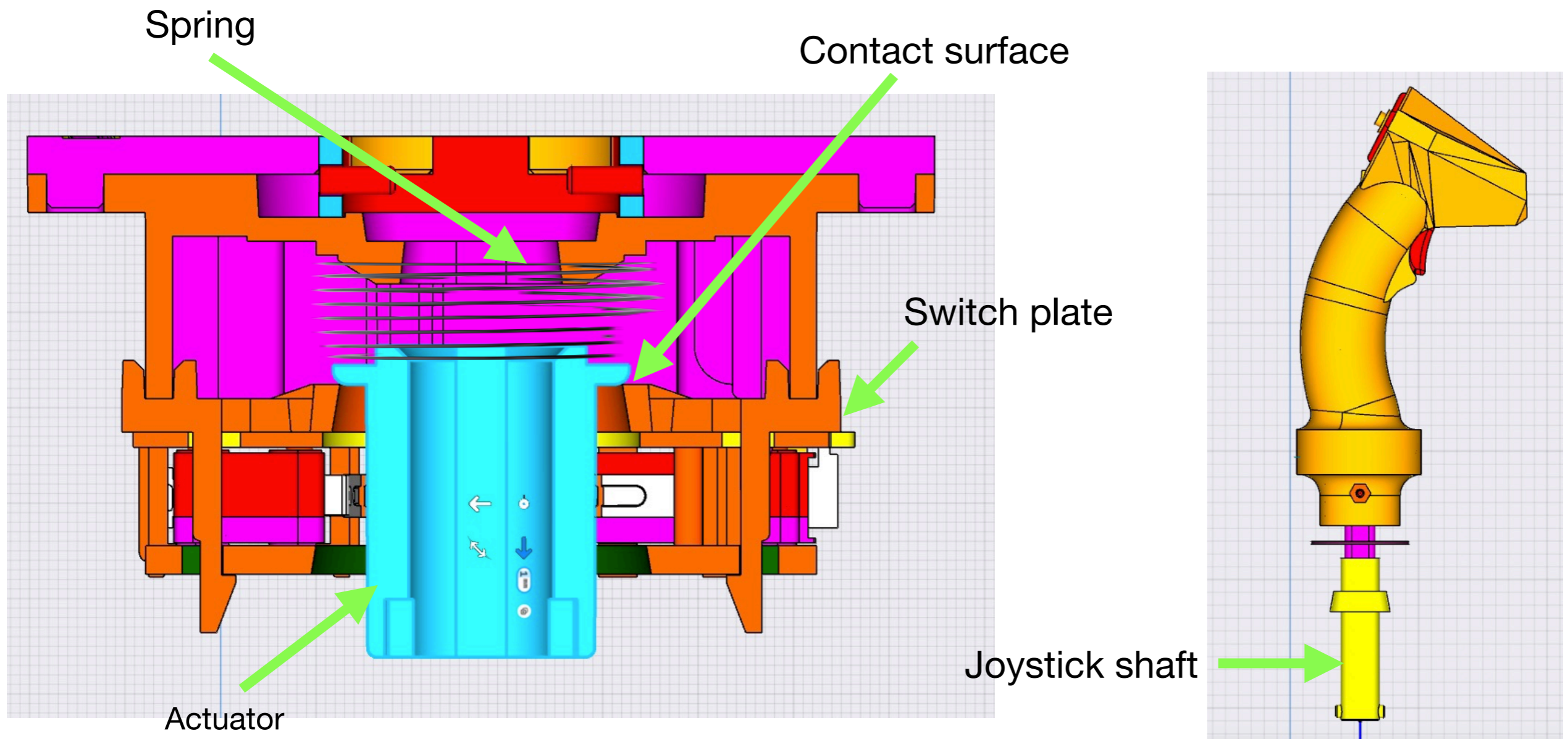


GRS Tron Flight Stick Centering Issue Explained

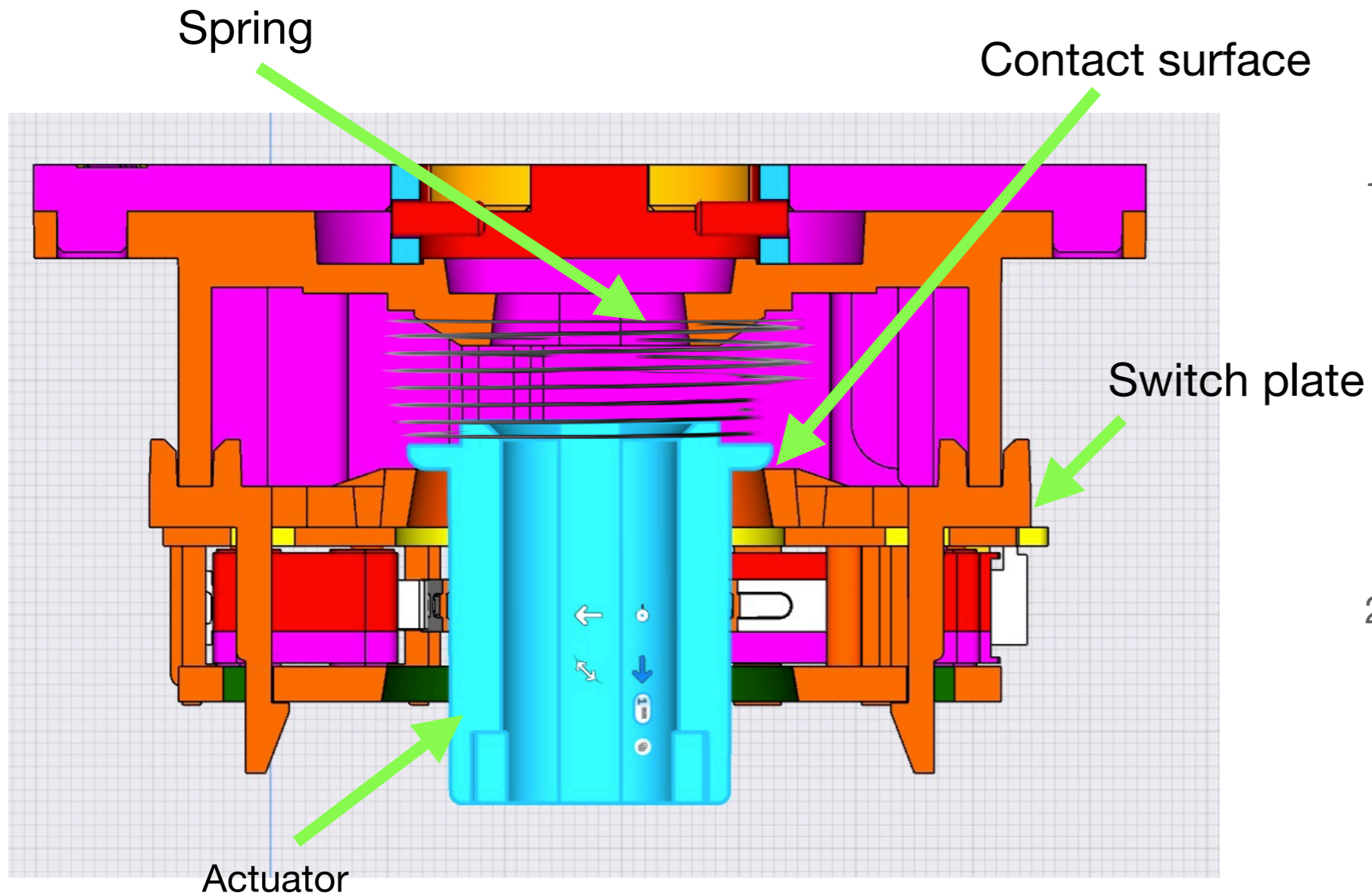
2022/02/16

Key components



Why is the joystick not center correctly?

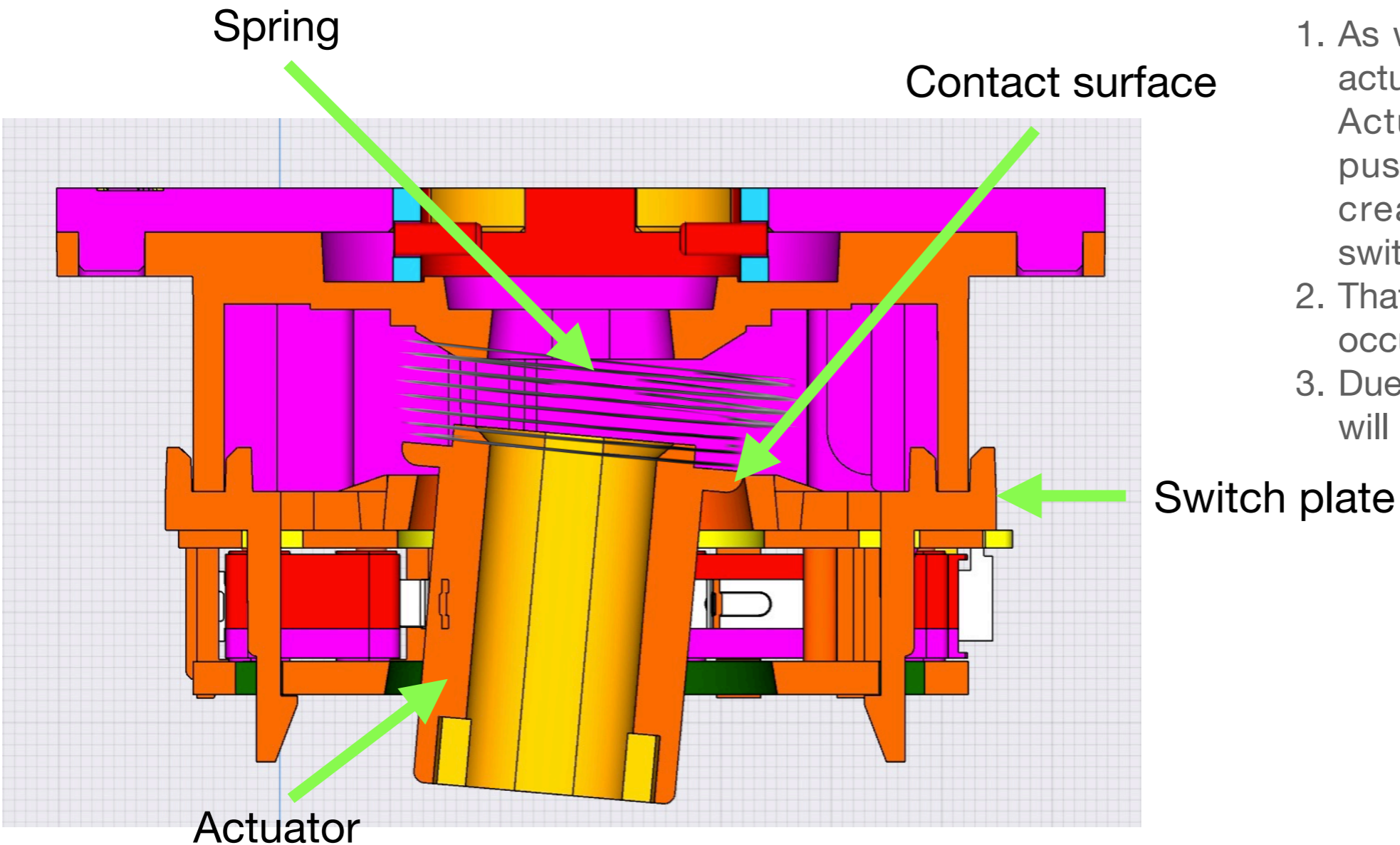
(Incorrect installation explained)



1. When the shaft is separated from the joystick housing or not being correctly installed, the spring is pushing the actuator towards the switch plate, it generate frictions while user try to physically move the actuator without the shaft or with the shaft incorrectly installed.
2. This causes common misconception of the joystick not being able to center correctly

Demonstration of the moving the actuator without the joystick shaft installed or installed incorrectly

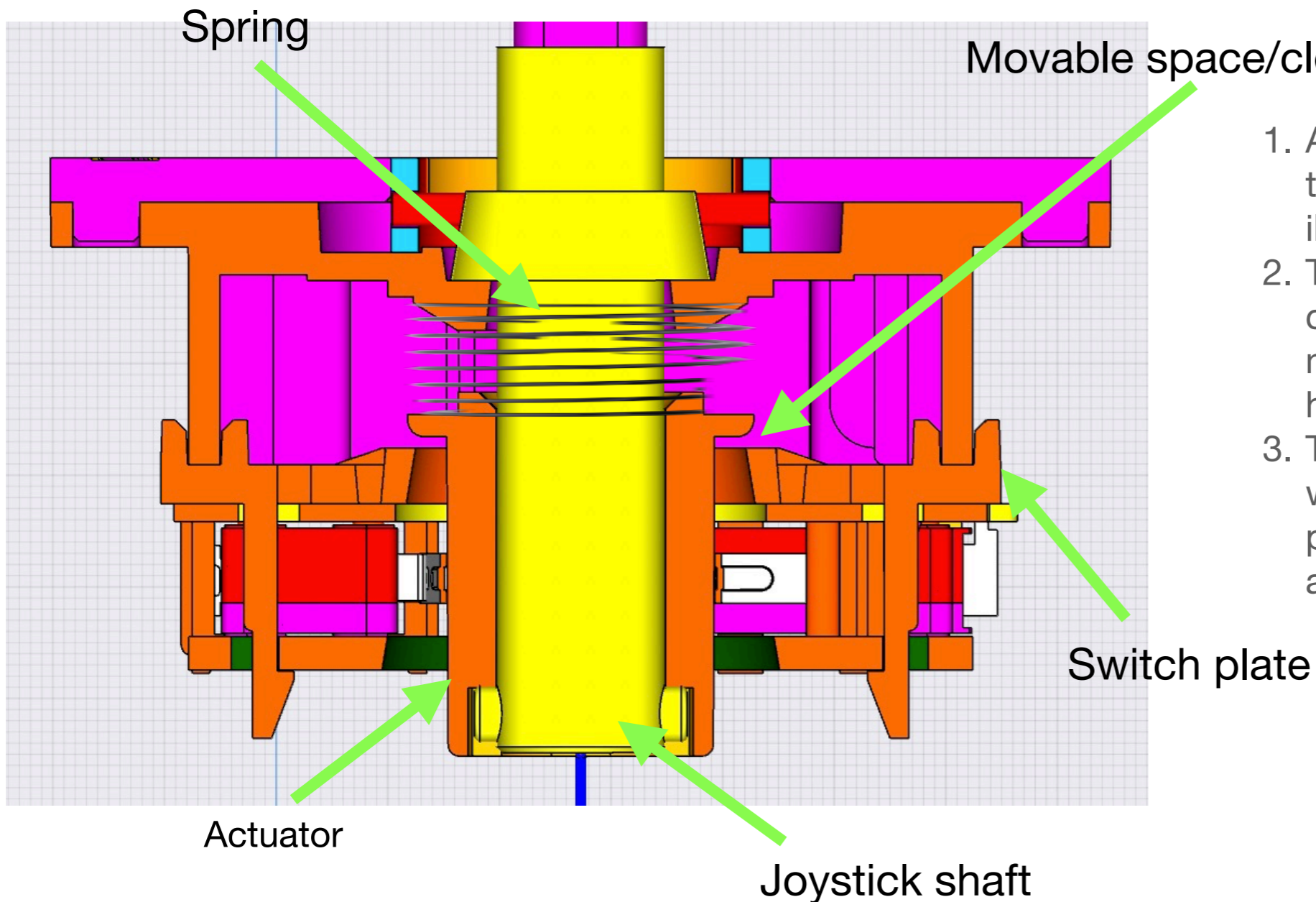
(Incorrect installation explained)



1. As we can see, while moving the actuator without the shaft. The Actuator is continually being pushed down by the spring, creating friction against the switch plate
2. That is how the centering issue occur
3. Due to the friction, the actuator will not center correctly

After the joystick shaft is installed

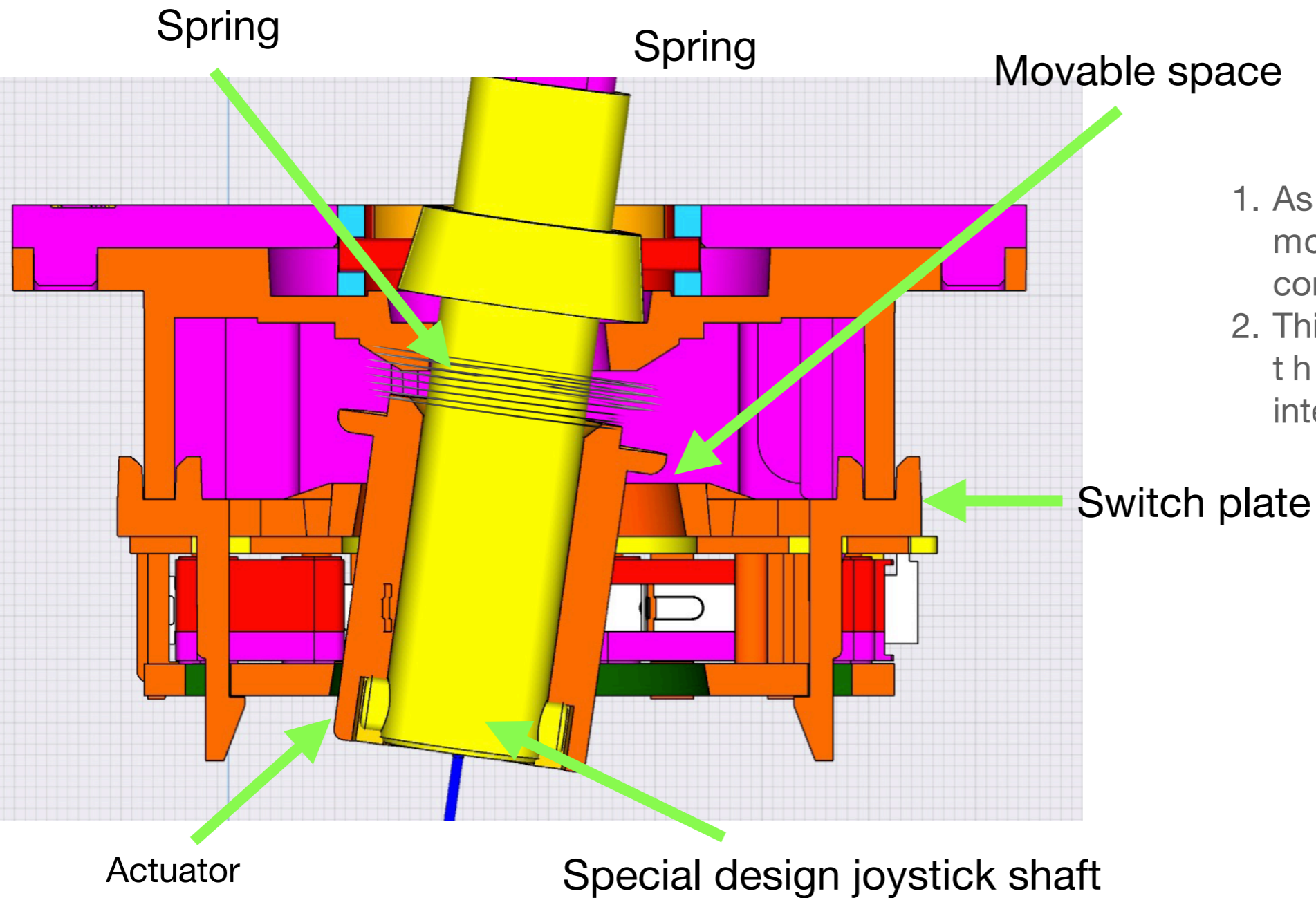
(Correct installation explained)



1. After the joystick shaft is installed, the Actuator will be lifted up as illustrated
2. There will be a movable space created to allow the actuator to move freely within the joystick housing
3. The spring centering mechanism will become effective as there is no physical contact between actuator and the switch plate

Demonstration of the moving the actuator with joystick shaft installed

(Correct installation explained)

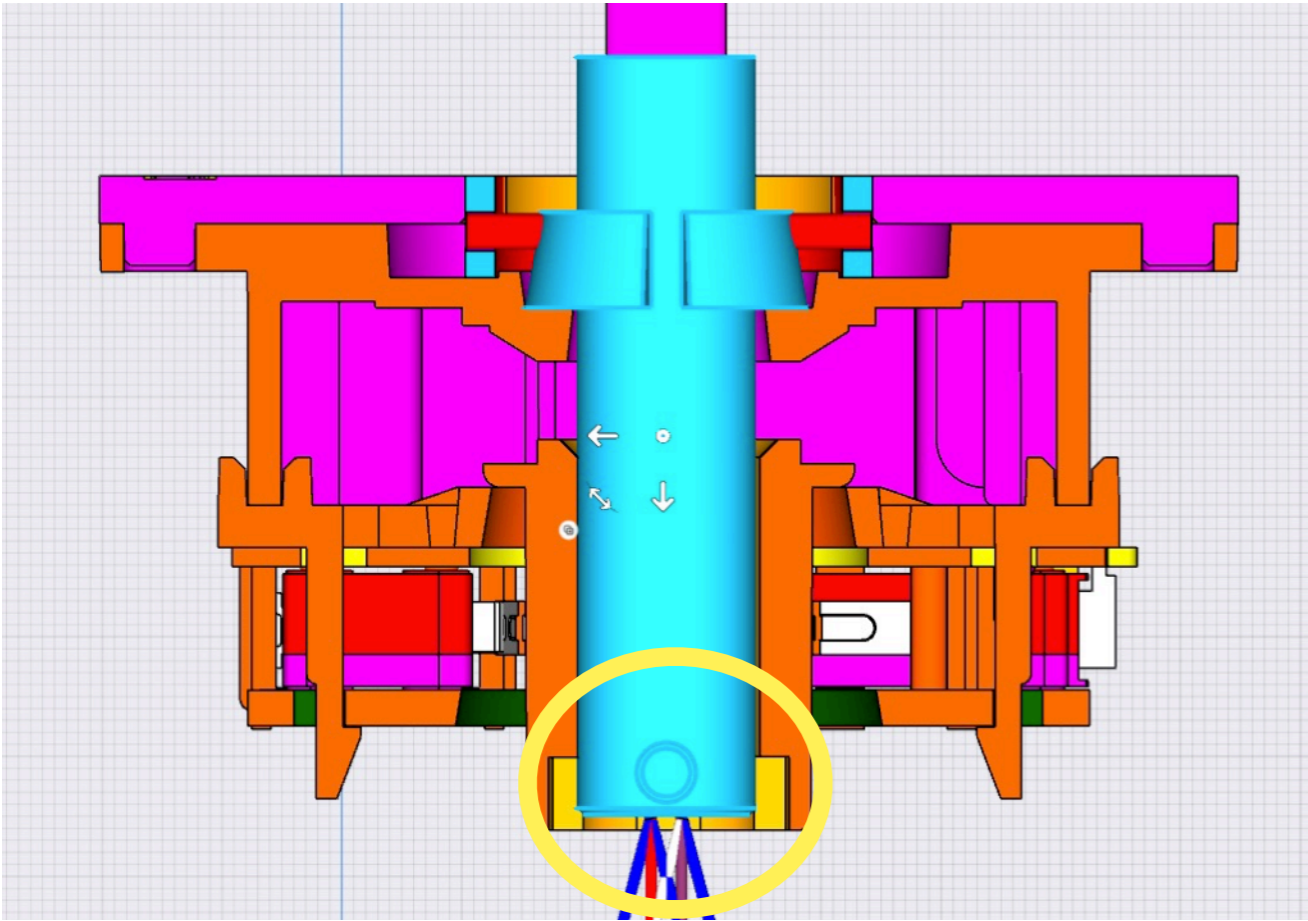


1. As we can see when joystick move, the actuator is not contacting the switch plate
2. This allow free movement of the actuator without interruption

Demonstration of the moving the actuator with joystick shaft installed

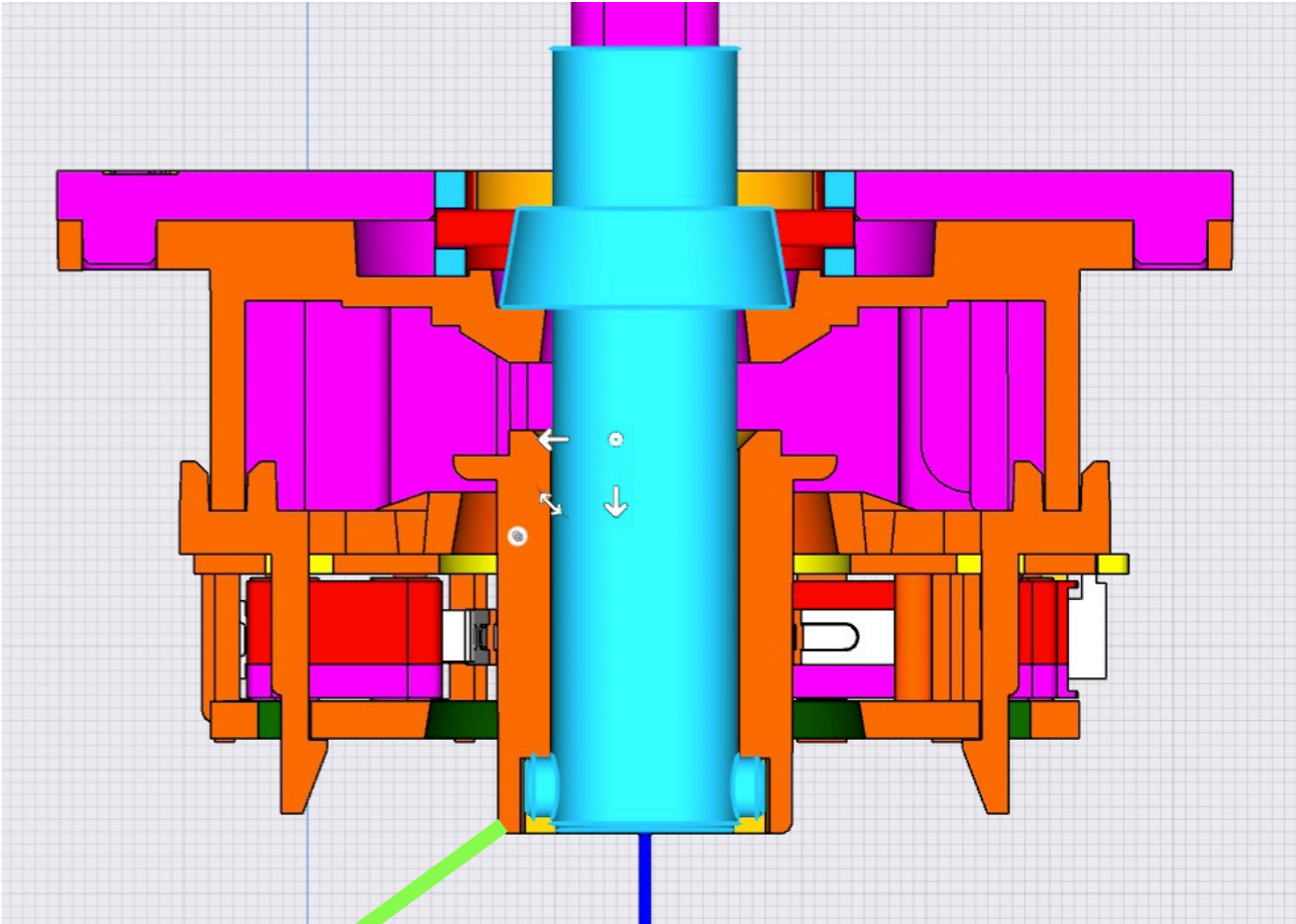
(Correct installation explained)

Incorrect installation for the joystick shaft



The shaft bumps is not lock within the actuator

Correct installation for the joystick shaft



Push up the actuator and rotate 90 degree to properly lock the shaft bumps inside the grove on bottom of the actuator

