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| Design needs to be able to:   1. Be able to start the sequence wirelessly by press of button. 2. Be able to initiate the sequence not just once. 3. Fit within ~8cm by ~6cm size if possible. 4. Cater the peristaltic pump (No need for stepper pump) of 12V 5W. 5. Peristaltic pump just needs to dispense once for each sequence. 6. Cater for gear motor lead screw of 12V 2W. **Link:** https://sea.banggood.com/DC-12V-60-or-100-or-200-or-300-or-400RPM-N20-Deceleration-Gear-Motor-with-T5x150MM-T-type-Quick-Thread-Output-Shaft-p-1855545.html?rmmds=myorder&cur\_warehouse=CN&ID=6294660 7. Gear motor lead screw needs to be able to translate the plate left and right until it hits limit switches. |

**Biosensor PCB**

**TOF sensor PCB**

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| Design needs to be able to:   1. Cater for up to 6 TOF sensors. **Link:** https://www.lazada.sg/products/2x-vl53l0x-time-of-flight-distance-sensor-gy-vl53l0xv2-module-for-arduino-i2138190071-s12155219808.html?exlaz=d\_1:mm\_150050845\_51350205\_2010350205::12:17761645364!!!!!c!!12155219808!141516182&gclid=CjwKCAjwsfuYBhAZEiwA5a6CDLLYEWba7P6u8uvYcFywqMxR5HOwvSQ9ItcKS3FpTCW7Uol3hc0TRRoCTJMQAvD\_BwE 2. 6 TOF sensors are aligned in a straight line (~20cm). 3. Be able to start the TOF sensors and measure the data wirelessly. |