1. Project number: S20-38

2. Project title (as will appear on the poster): Gesture Based Panic Button

3. Team members: Daniel Chan (POC), Allyana Dela Rosa, Priyanka George, Michael Edwin

4. Adviser(s) name(s): Professor Wu

5. Up to 5 keywords that will help to classify the project scope:
   Discreet
   Wearable
   Gesture
   Infrared
   App

6. Project abstract (up to 250 words) to be shared with judges:

   In today’s world, crime is an inevitable situation and although it is on the verge of being regulated, there is still the presence of potential threats. Under the stress and fear of these situations, victims can tend to freeze up and may not have ready access to their phones. As a solution, we aim to develop a small and cost-effective gesture initiated detection sensor that allows a person to discreetly notify an emergency contact. Using a passive infrared sensor, we will build a hardware device that will detect a specific motion and send inputs to a phone application that will then notify a person on the wearer’s emergency contact list. In situations where the wearer might make the specified gesture by accident or misidentified a threat, we plan to create a failsafe operation on the app that will warn the wearer prior to sending the emergency notification. This way, the wearer can have the option to cancel the notification on their phone or proceed if they choose not to.