1. Motor oscillates back and forth 90 degrees.
   1. DONE
2. Ultrasonic Sensor detects if motion occurs in front of it.
   1. Motion under 10 centimeters.
      1. BUG: If 0 is detected the motor stops.
         1. RESOLVED:
            1. (testVal != 0) {distance = testVal}
      2. BUG: Motor stopping after 1 full rotation.
         1. RESOLVED:
            1. Tasknum was == 3 // made tasknum == 4
            2. UPDATE: Tasknum == 3 again, increased period to 100. Takes two starts sometimes to fix.
            3. Moved distRead() to END of loops inside the motor movement function.
   2. When motion is detected:
      1. Initialize value mPow to 0
      2. FIXED: At the moment, if no motion detected < 10 cm, mPow initialized to 0.
   3. Once passcode is entered:
      1. Initialize value mPow to 1.
3. LCD monitor displays “Motion Detected!” if motion is detected.
   1. BUG: Not displaying?
      1. RESOLVED:
         1. Changed tasknum == 3 // increased task period == 100
         2. This also fixed the lcdPrint() function.
   2. Currently says “No Motion!” When now motion.
   3. Says “Motion detected!” When motion.
      1. Returns to “No Motion!” when code is entered correct amount of times.
   4. Displays when mPow == 0
      1. Alarm ON! Enter Code: “random number”
4. Button
   1. Pressing this is how we enter the code to unarm the system.
      1. Button currently in SM3
      2. Responds to push
         1. On\_Push = ON
         2. Off\_Push = OFF
   2. Pressing saves a random number [1,5] to rNum.
   3. Button now tracks value equal to number of ON presses perform
   4. If ON presses = alarmCode
      1. mPower = 1 // System is reset.
5. Joystick Module
   1. While mPow = 0
      1. If mapX > 400
         1. Move motor right
      2. If mapX < 20
         1. Move motor left
6. Buzzer
   1. While mPow = 0
      1. Buzzer = ON
   2. While mPow = 1
      1. Buzzer = OFF