The following folders contain the code we used for our robot and an accompanying brief description:

**Arduino – MegaPi:**

* Main.ino
  + File that contains the driver program to be executed during an actual run. Uses other files found in this folder to fulfill its duties on the Arduino side
* ArduinoMaze.cpp
  + Contains utility functions for state machine and victim detection
* Chassis.cpp
  + Wrapper class that contains movement and some sensor functions for robot
* LaserSystem.cpp
  + Wrapper class for lasers
* SerialArduino.cpp
  + Class for Serial communication with Pi

**Raspberry Pi – StereoPi:**

* ArduinoSerial3.py
  + File that contains the driver program to be executed during an actual run. Uses other files found in this folder to fulfill its duties on the Raspberry Pi side
* ColorDetector.py
  + File that contains color-detection functions that our main program uses to detect color victims via the two cameras
* commLOP.py
  + File that contains class definition of object that handles the Serial & GPIO communication between the Raspberry Pi SteroPi and the Arduino MegaPi on the Raspberry Pi side.
* LetterDetector.py
  + File that contains letter-detection functions that our main program uses to detect letter victims via the two cameras
* nav.py
  + File that contains class definition of object that handles the navigation system of our robot. Also handles file I/O to record traversed Maze should the robot lack of progress to the checkpoint