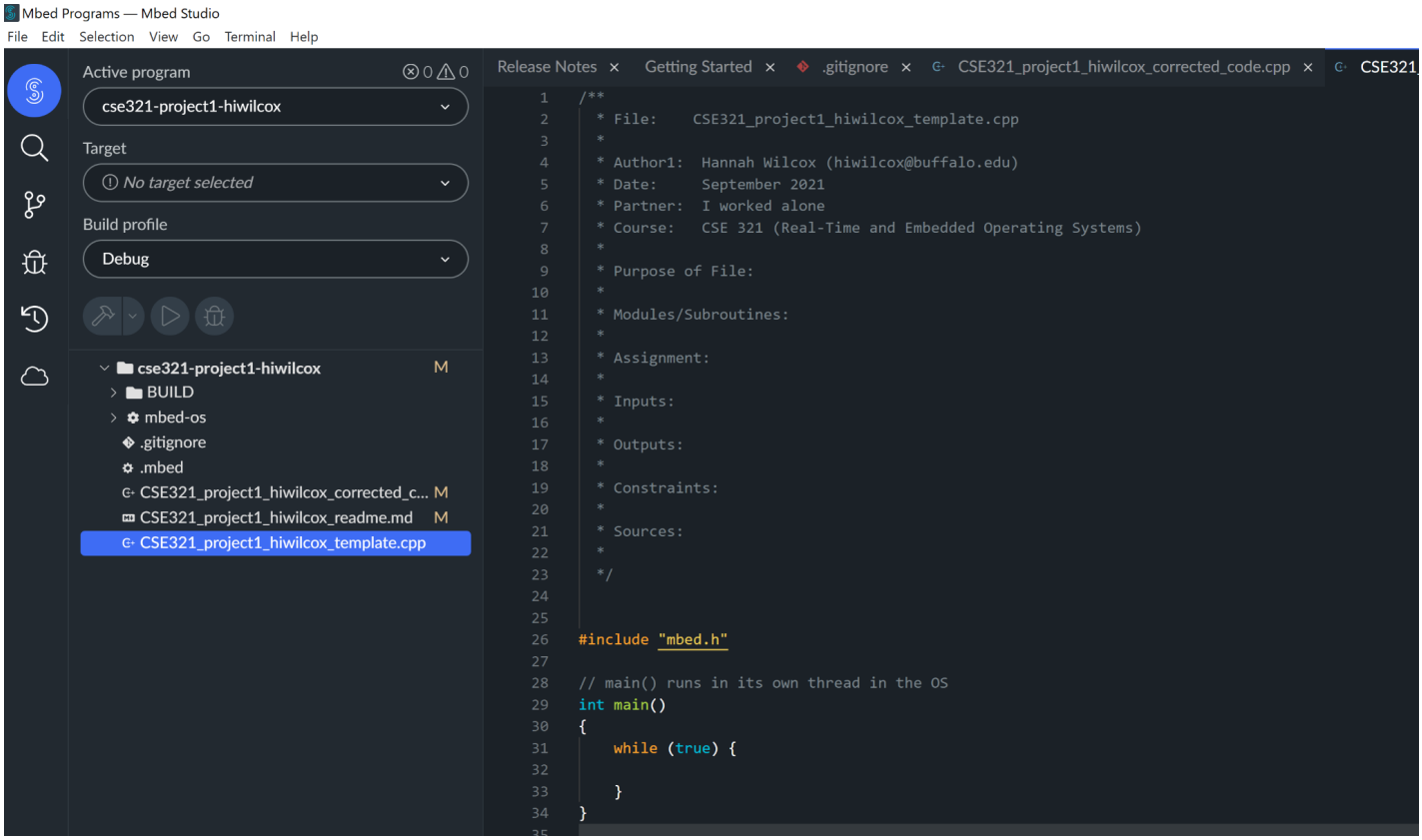
Hannah Wilcox



Github User: hannahwilcox6

Part 5

Ask

The goal of our device is to ensure the safety of geese crossing at intersections. Our inputs will be sensors detecting if the geese are nearby and about to cross, with our outputs being a change in the intersection traffic lights from blinking red to solid red. Once the geese have safely crossed the sensors will detect this and return the traffic lights back to blinking red. More specific constraints include the usage of an IoT device.

Research / Imagine

Research for this project will include creating a device that can detect when geese are crossing, as in being able to specifically detect moving geese.

- This could also mean for the input not allowing for the traffic light to change if the device detects something crossing that isn't a goose.
- Another issue that could arise is if a goose gets struck by a car and is in the intersection but not crossing, as this would lead to a permanent red light. I believe the best approach would be to detect that there is a goose, and that it is showing movement within a reasonable amount of time (maybe check for movement every 5 seconds or so).
- We could also research and see if there are any "average speeds" of walking geese, as to not detect any similar shaped animals.
- The camera would also need to find geese at their different stages of life, from a baby to a teenager to a fully grown goose.
- From this point on the project is relatively simple as once you've detected that a goose is crossing it's a matter of switching the traffic light, and then once the detection is gone, to switch the light back.

Plan

Hannah Wilcox | October 4, 2021