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Gigi the Autonomous Firefighter

We would like to start off by saying thanks everyone involved with Botball because without you this would not have been possible. When we attended the sessions for learning programming provided by Botball, we learned that there was much potential in the CBC and so we decided to use it in another competition aside from Botball. We entered a competition in which the goal was to create an autonomous firefighter. Gigi was created for this competition using the Botball kit.

The main components of Gigi were the CBC, sonar sensor, top-hat sensor, a propeller, three motors, three light sensors, and an aluminum coffee can. The outer shell of Gigi was made from the aluminum can which encase the sophisticated hardware that allowed her to move throughout the course. The CBC was a simple yet sophisticated system to use because the programming language was easy to comprehend and learn. Another thing that made it easy to use was the simple connection and disconnection ports for all the sensors and motors. The simplicity of the port connections allowed us to connect a different sort of motor but still allowed us to keep track of the ticks, speed, and velocity. This enabled us to create an interesting and unique way of starting our robot. We connected a motor that was not part of the Botball kit but because the CBC was very compatible and we were able to run it and program it with the CBC. Once we discovered that the ticks were still being counted we got the idea to write a program in which the ticks were counted and once it hit a certain number the robot would start up. The starting

mechanism is like that of older planes in which they would spin the propeller by hand allowing the motor to start, but in this case it started the robot's program.

The starting mechanism was one of the best parts of working with the robot and if we did not have the CBC it might have not happened. We also were able to go home with 1st place at the firefighting competition. Our success would not have been possible without the CBC and the sensors provided by the Botball competition.