

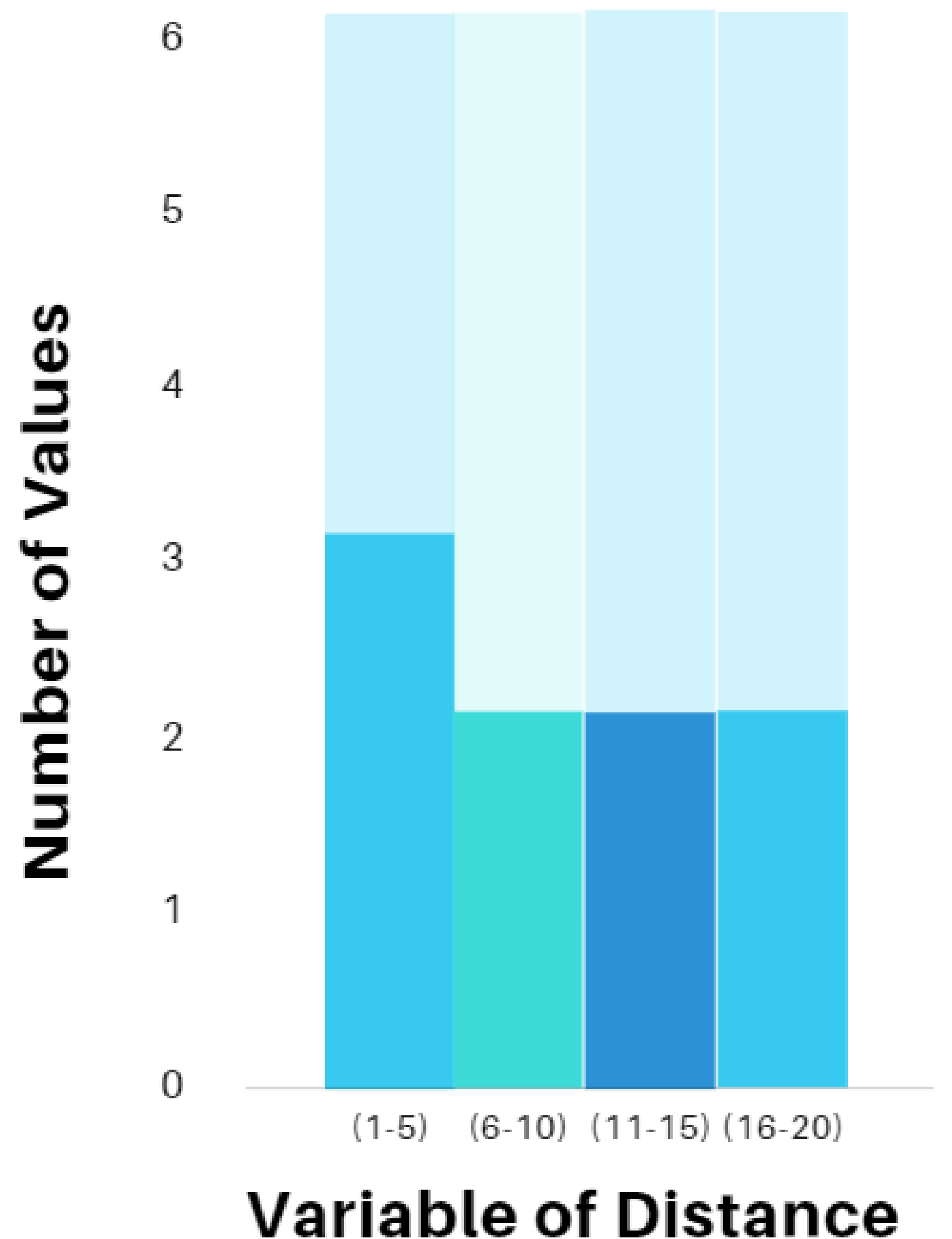
Introduction

- Our smart parking system creates a system that facilitates people's work in the parking lot today. With the ultrasonic sensor in the parking area, you can easily park your vehicle without hitting the wall. The system informs you with a light and audible warning system. If a fire breaks out in the parking lot, the system detects it with the fire sensor and immediately extinguishes it with water.
- We use ultrasonic and flame sensor.
- These measuring instruments system can be used in every car park area, in shoppingmall, multilevel parking garage etc.



Statistics Calculations

- Variables of Distance: 18,15,20,12,12,10,8,5,3,4
- Mode: it has 1 mode:
- Median: $\frac{n+1}{2} = \frac{10+1}{2} = 5,5$ so $\frac{10+12}{2} = 11$
- Mean \bar{x} : $\frac{18+15+20+12+12+10+8+5+3+4}{10} = 10,7$
- Variance: $\frac{\sum_{i=1}^n di}{n-1} = \frac{(3-10,7)^2 + (4-10,7)^2 + \dots + (20-10,7)^2}{n-1} = \frac{306,1}{9} = 34,01$
- Standard Deviations: $\sqrt{Variance} = \sqrt{34,01} = 5,83$



Conclusions

- We have learned how different sensors work and how to integrated with other sensors with Arduino. We have also learned where measurament systems in our life and the importance of teamwork.