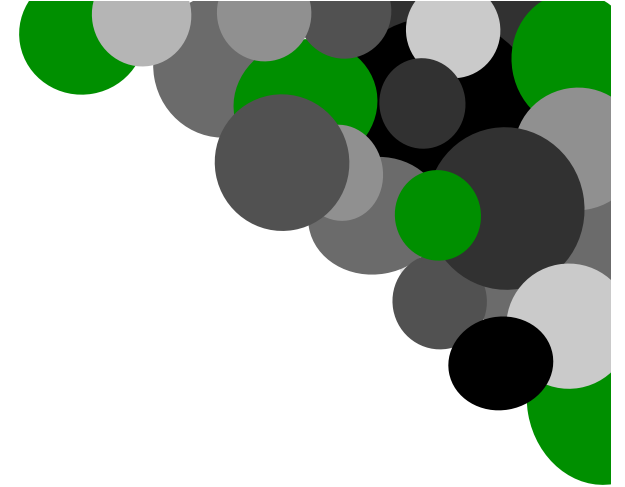
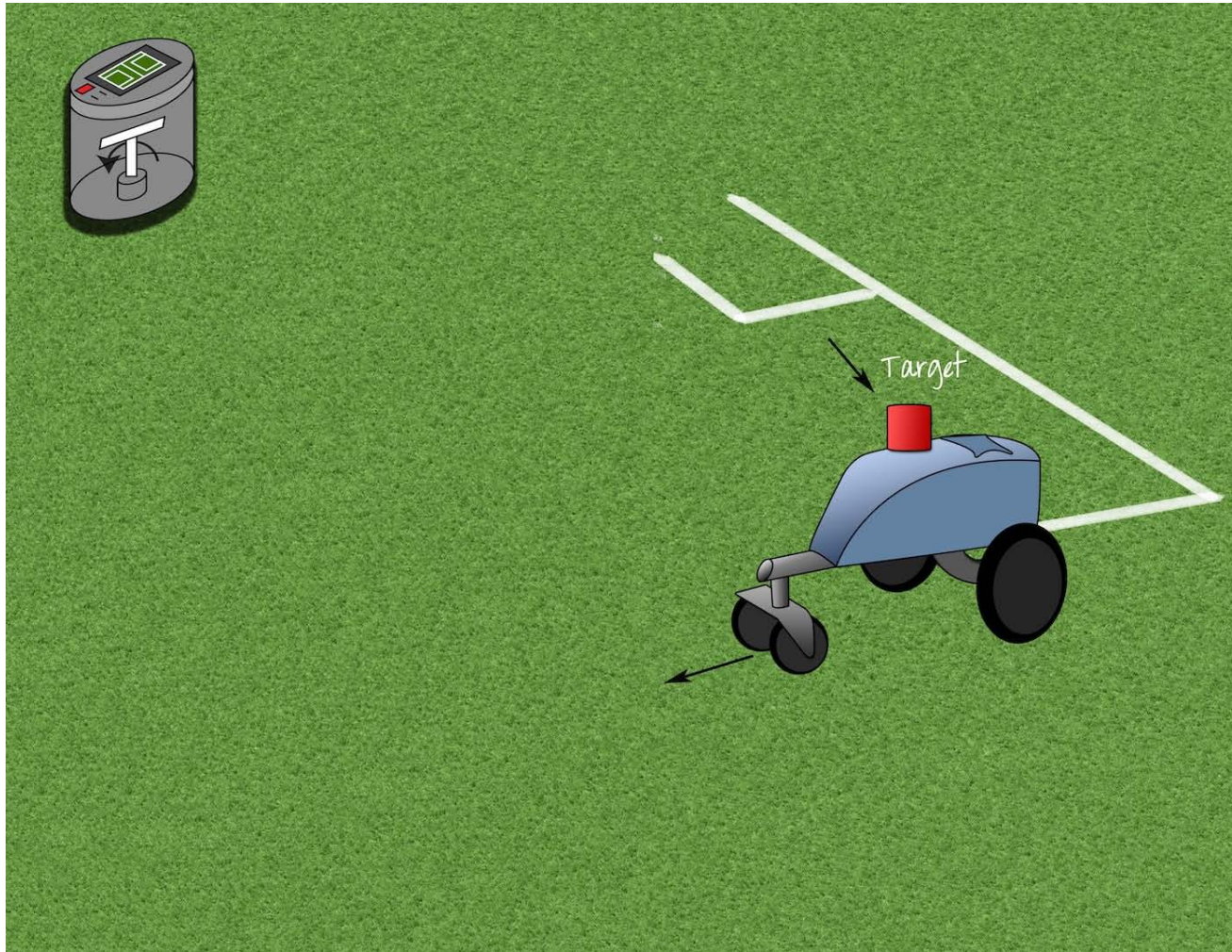
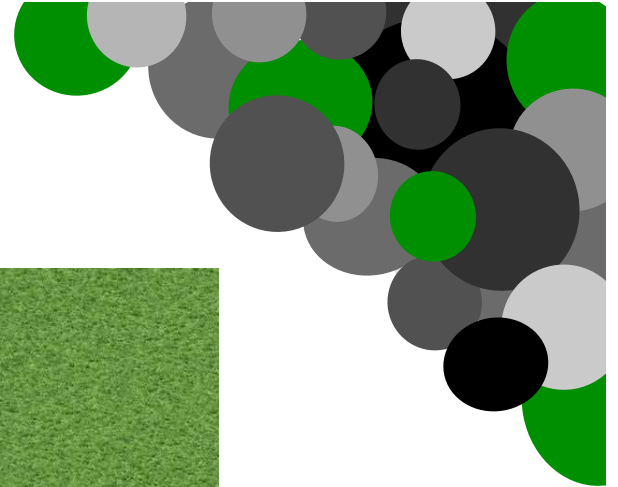


Silver B



an autonomous  
multi-sport field liner

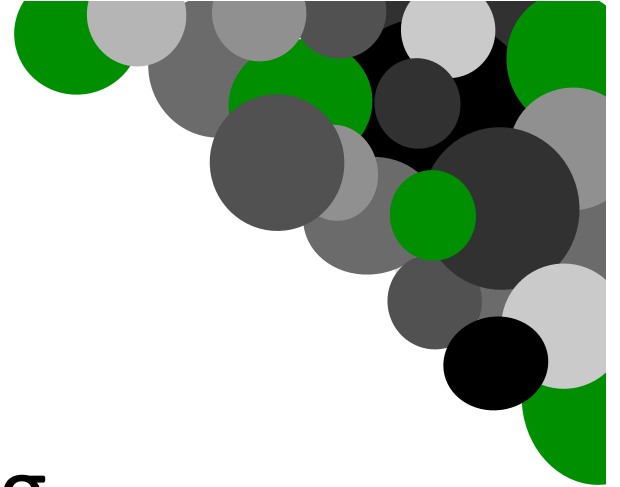


# Motivation

tedious and time consuming

400,000 potential consumers

interest from local high schools



most accurate



least  
> effort

# Critical Problem



detect polar coordinates of robot

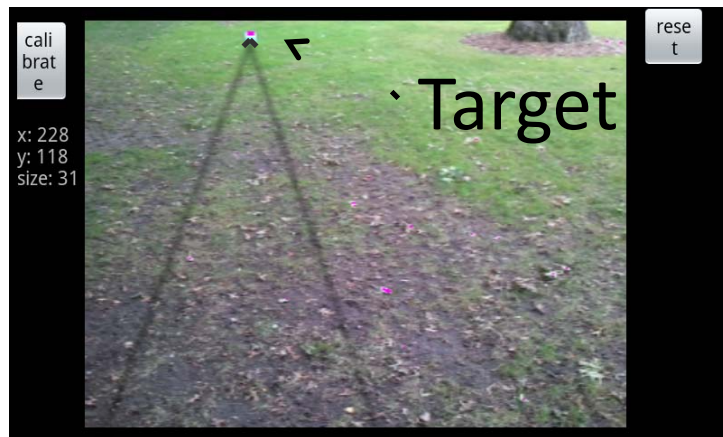
abide by budget

investigate alternative methods



# How it Works

camera calibrates to detect  
colored object



Target



# Conclusion

## accuracy vs. acquisition time

- 0.5 frames / sec: accurate within 40-50 feet





# Conclusion

## accuracy vs. acquisition time

- 10 frames / sec: accurate within 10 to 15 feet



# Further Considerations

dual home-base triangulation

laser rangefinder

