# GSIT Quest 2 Solution

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So we only get to meet twice as a team for each quest. Our coach was unable to go to the second meeting because her FRC team went to worlds in Houston. During our first meeting we worked on quests 2 and 3 and the bonuses. During our second meeting we worked on quest 1 and recording our solutions. Side note - Keira was also in Texas for the FRC stuff so isn't in the recording but she helped with Challenges 2 and 3. We did get team shirts finally!

## Challenge 1

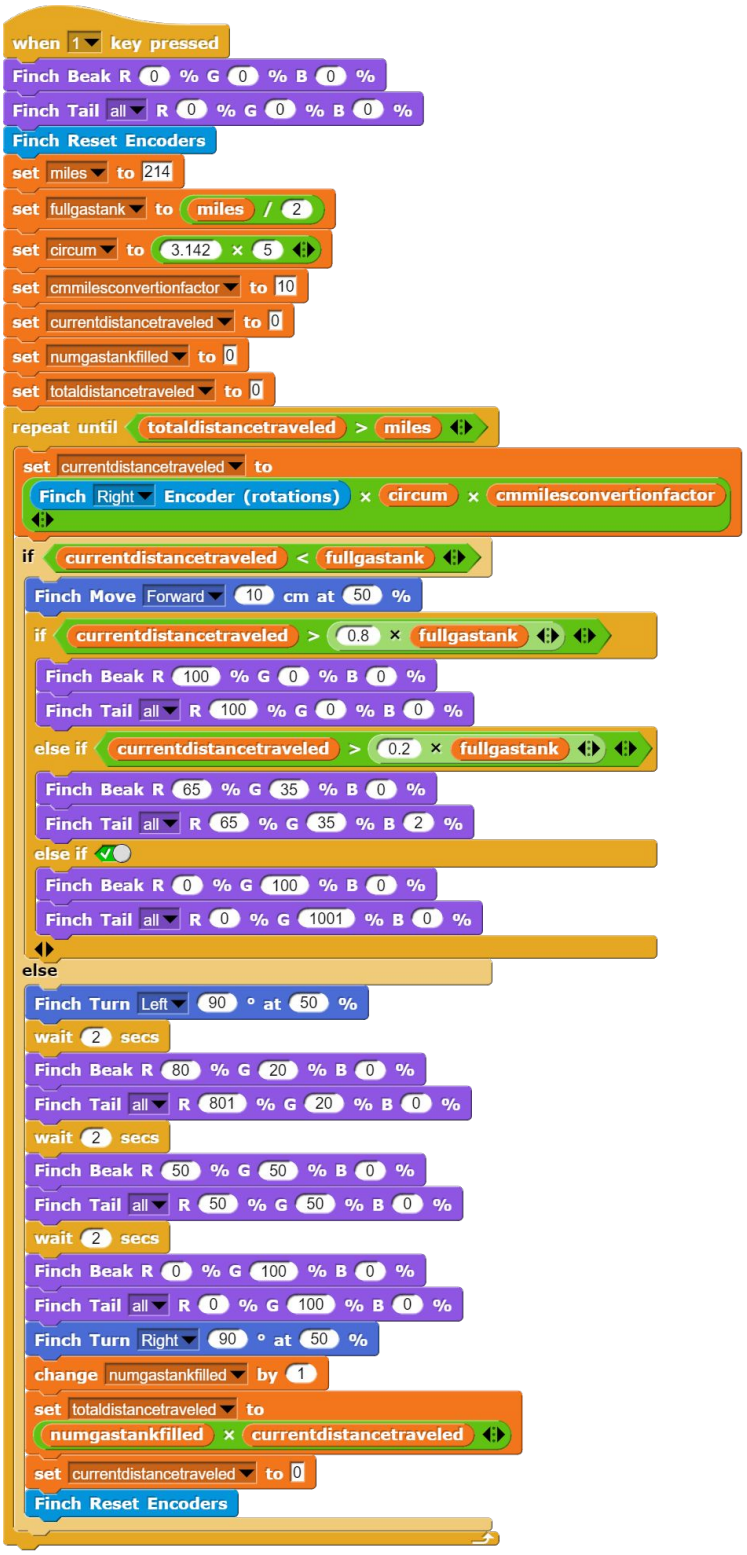
This is the quest we tried to do without our coach. She made a video but we are still confused about what we were supposed to turn into a function and didn't have time so we know it's not right. We wish we could have another meeting to actually learn it but this is what we did - we tried our best. Hopefully we get a chance to redeem ourselves on the final quest. We did do a little extra and made Finch turn and pause like she was filling up her gas tank!

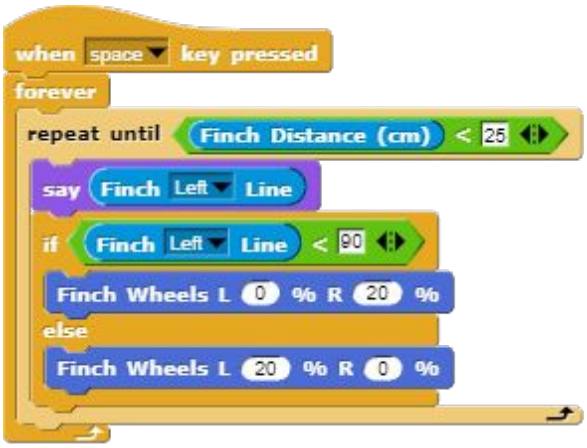
We have variables to keep track of how many miles is a full gas tank...well cm because we convert. Then we use the encoders and math and circumference to figure out how many cm we actually traveled.

We think something in the middle if statement should be the function but we weren't sure exactly how to use it after watching the video in the instructions and the video from our coach.

Down at the bottom you can see where when we run out of gas we stop to fill up the tank before we keep moving.

It was also kind of tricky to figure out how to keep going so we reset the encoders and then keep track of how many times we filled up the gas tank so we know when we go the full distance.






## Challenge 2

*This one was pretty easy. We just followed the instructions for line following and it worked. We guessed at how far the distance is around and kept making it bigger until Finch went all the way around. After the video when we went to make this we realized we forgot to make Finch do lights and sounds and be excited to travel - oops! Another thing we would have fixed if we had more time.*

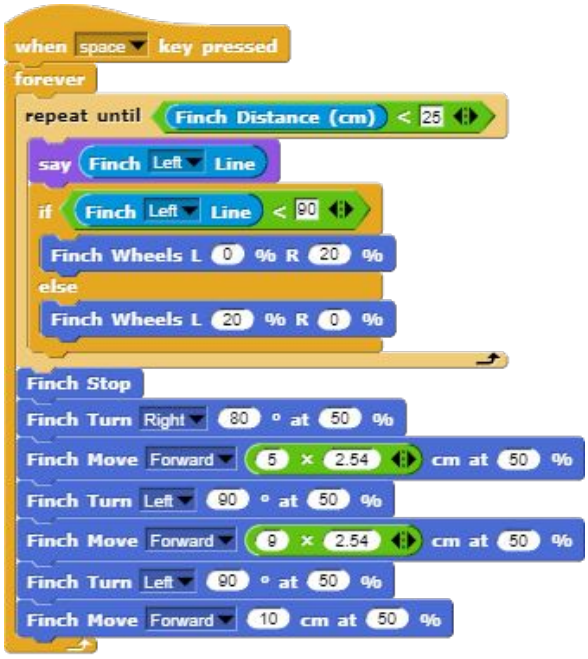
## Challenge 3

*Even though this is the last challenge we actually did this one first because we thought it was the funnest and easiest! The hardest part was making sure the stick stayed up and could knock over the ping pong ball!*


## Bonus Solutions

*We actually finished the bonus solutions during our first meeting but ran out of time during our second meeting to record them. Looking back we could do more too - add in lights and sound. We also were supposed to use a function in Bonus 1 for going around but still haven't really learned those yet.*

### Bonus 1




### Bonus 2