Weekly report

1. **My *Goals* from last week**
   1. (Let’s set the bar lower so I stop failing) Find a sensor that actually senses kilobots
2. **My *Accomplishments* this week**
   1. Project 1: < Force Sensors>
      1. Contacted force sensor companies both via e-mail and a phone call to each
         1. Tekscan: The same company with our Flexiforce sensors
            1. Attempted to call them twice since last report, still no response from this company
         2. Interlink Electronics
            1. Attempted to call them twice since last report
            2. Last call (on Tuesday) received a quick call back, but somehow the call disconnected. When I called them back immediately there was no answer. Still waiting for a response
         3. Complained about companies not responding… a lot
      2. Determined alternative solutions to measuring kilobots
         1. Attaching sensors along the whole bar and dividing the force seen by the whole bar as the kilobots push the whole bar
            1. This measurement won’t be actually show what a robot will push at the time since the force is not evenly dispersed because of how the robots push
         2. Putting a sensor behind the par and then forcing the kilobots along rails so they all
            1. This isn’t an organic measurement like we can expect in results since the robots are curved and don’t transfer force like that usually
            2. We might run into that problem we read about in one of the papers in the summer where they don’t always vibrate at the same time, so that doesn’t mean they’d actually push each other exactly on that spot as it is
         3. A multistage pulley system
            1. Multiple pulleys in parallel amplify force. This amplification can be calculated to determine the force approximately
            2. I was told Pushing and Pulling Forces are different by Javier
         4. Javier suggested attaching a bag to the kilobot and slowly adding weights. The weight where it stops being able to move is where it should be its limit to pulling
            1. Robots don’t constantly go forward so it won’t work as well as a theoretical expects
            2. I am not sure we will find something light enough to not tip the robot
            3. Once again pulling and pushing forces aren’t the same
         5. Still looking for other ideas to not have a super sensitive sensor
   2. Project 1: < Other >
      1. Vex Robotics Competition
         1. Created a new autonomous code for the robot
         2. We won excellence at Texas competition
         3. Placed second place out of 10 colleges
3. **My *Goals* for next week**
   1. (Let’s set the bar lower so I stop failing) Find a sensor that actually senses kilobots
4. **Needed from Dr Becker**
   1. Nothing