

## Practice #3

### Preparation

- Find a video that does a good job of explaining the EV3 kits of parts – we found <https://www.youtube.com/watch?v=cE9Nv7ZrIGg>.
- Get scratch paper together for the team to design their robot
- Review the “**EV3 – Motors –Sensors Explained Info Sheet**” to get an understanding of the different motors and sensors in the kits.
- Become familiar with the Blindfold Maze Teambuilding activity

### Beginning

#### 5 min - Go over the plan for today's practice with the team

Explain that the team will do a team building activity, watch a video on what their robot kits have in them, design their robots, and vote on their research project topic.

### Team Building Activity

#### 20 min – Blindfold Maze

<https://www.pinterest.com/pin/440367669798943909/>

Find an open area in the practice room or outside in the grass, but designate clear boundaries. You will also want to designate a specific starting point.

Choose 1 person to be the seeker in this activity. The seeker will then turn around and put a blindfold on.

The other team members should place an object within the designated boundary at some arbitrary distance and angle from the starting point.

Guide the seeker to the starting point.

Next, the other team members will need to describe to the seeker how to reach the item that they have placed for him to find.

They can use descriptions such as:

Take 10 steps straight forward.

Then take 5 steps to your right.

Take 1 step backward.

Now, bend down and pick up the \_\_\_\_\_.

This activity can be repeated so that each team member has a turn being the seeker. You could also set up three different game areas so that all team members are participating at the same time. You could also switch partners so that each team member has to work with different members of the team.

**10 min – Play a video from YouTube that explains the kit of parts**

This will help the team get an idea of what they have to build with and review from last week. This video will also be posted on our website

<http://gillespie.agrilife.org> > 4H > Robotics > Resources for FLL coaches.

<https://www.youtube.com/watch?v=cE9Nv7ZrlGg>

**Break?** - If you team is made up of mostly 4<sup>th</sup> or 5<sup>th</sup> graders, they might need a little break at this point, so you can run outside and play tag or something similar for a few minutes. If you have mostly older members, then you might be able to push on.

## Main Part of Practice

**60 min - Design the Robot**

You can do this however you see fit. You could divide the group into two and have one group work on designing the base, and one group working to decide the arms or other features of the robot. There is regular white paper on the counter.

Remind the team to look at what missions they chose to attempt during the first practice to help them with the design.

Team members will want to keep records of their sketches or take photos of the building process to review for the Robot Design Construction interview at the tournament.

**? min – Robot Construction - once the team has a design in mind and on paper**

You can do this however you see fit. You could divide the group into 2 groups of 3 and have one group work on designing the base, and one group working to build the arms or other features of the robot.

Remember to have at least one team member keep records and take photos of the construction process because you will need these records.

## Wrap Up

### **20 min – Decide on What the Team’s Research Project Will Be**

**Summarize the process that the team will need to complete to solve a problem, find a solution, and present their solution to the community.**

Use the Rules of Order for the Gillespie 4H Robotics Program to decide on the topic for the team’s research project. Then, start assigning parts of the research to each team member to bring to practice next week.

**\*\*\*Next week your team will be making a poster about the FIRST © CORE Values, so you will need to secure a poster of some sort for your team. The poster cannot be taller than 3 ft or wider than 4 ft.**