

## **Mister Rogers' Robotics Adventure**

### **MISSIONS**

For the purpose of these Missions, the following definitions will be used:

**IN/INTO/TO (For Areas as Targets):** Any bit of the object just needs to barely cross over the outer edge of the target

**IN/INTO (For Containers as Targets):** The object must be trapped from being dislodged in at least five directions

**OUT (For Areas and Containers):** Not one bit of the object is **IN**. Note: **OUT** always means **COMPLETELY OUT**.

- **DANIEL TIGER'S CLOCK**

Mission: Hit the door knocker and have Daniel Tiger come out of his clock for **10 Points**

- **THE PLATYPUS MOUND**

Mission: Pick up Ana Platypus at her mound and drop her off at "Some Place Else" for **20 Points**. Your robot must cross INTO the Platypus Mound area for you to **MANUALLY** load Ana on your robot. Your robot must then cross INTO "Some Place Else" to **MANUALLY** unload her. If, in the estimation of the Referee, you have loaded Ana while your robot was not IN her Platypus Mound area or if you unload her while your robot is not IN "Some Place Else", your team will receive **0 Points**. Your robot does not have to drop Ana off right after it picks her up. If your robot has successfully picked Ana up, your robot may carry her around or bring her back to Base for drop off at a later time.

- **LADY ELAINE'S MUSEUM-GO-ROUND**

Mission: Spin Lady Elaine's Museum-Go-Round by releasing the switch for **10 Points**.

- **X THE OWL'S TREE**

Mission: Your Robot must play a song for X the Owl and Henrietta Pussycat and receive **20 Points**. Your robot must be IN the Acceptable Area by X the Owl's Tree when your robot **STARTS** to sing. Your robot must remain in that area for the whole song, which must last at least 5 seconds. If your robot starts singing prior to being IN the Acceptable area or if your robot is still singing when it is OUT of the area, your team will receive **0 Points**.

- **SOME PLACE ELSE**

Mission: Bring Ana Platypus from her House for **20 Points** and Prince Tuesday from Base for **10 Points**. Your robot must then cross INTO “Some Place Else” to **MANUALLY** unload Ana Platypus and/or Prince Tuesday. If, in the estimation of the Referee, you have unloaded either of them while your robot is not IN “Some Place Else”, your team will receive **0 Points** for both missions.

- **THE QUEEN’S GARDEN**

Mission: Help Queen Saturday plant the trees in her Garden for **10 Points**. The tree seeds start in base and must be dropped off IN the seed box in the Garden. Your robot must cross INTO the Garden area for you to unload the seeds. If in the estimation of the Referee, you have unloaded the trees while your robot was not IN the Garden area, you team will receive **0 Points**.

### **THE CASTLE**

Mission: Place King Friday’s Crown IN his Castle area for **10 Points**. The Crown starts in Base and must be dropped off IN the Castle area. Your robot must cross INTO the Castle area for you to **MANUALLY** unload the Crown. If in the estimation of the Referee, you have unloaded the Crown while your robot was not IN the Castle area, you team will receive **0 Points**.

- **FEED THE FISH**

Mission: Place all three pieces of Fish Food (LEGO bushings) INTO the Aquarium for **20 Points**. All three pieces must be placed IN the Aquarium by your robot for points.

- **PICK A SWEATER FROM THE CLOSET**

Mission: For **20 Points**, your robot must locate the red sweater from among three sweaters for Mister Rogers to wear. (Using Dual-Lok, different colors of cardboard, representing the sweaters, will be held down in the closet.) The location of the red sweater is random and its location may be changed between rounds. Note that the location of the red sweater **will** be known to the team prior to the start of the round. Your robot must do something to indicate that its light sensor is over the red sweater. This indication may NOT be a sound. Your robot should light a lamp, move an arm or make some other signal that the Referee will find easy to recognize. If your robot selects the wrong sweater the first time it goes to pick out the red one, it may not try again to select the correct one.

- **SPEEDY DELIVERY**

Mission: Your robot must put a letter IN the mail slot for Mr. McFeely to deliver to receive **35 Points**. If your robot drops the letter off IN the Speedy Delivery area but not IN the mail slot, your team will receive **10 Points**.

- **CORNEY’S FACTORY**

Mission: Bring your own team designed Invention and move it TO Corney’s Factory. Your Invention must consist of at least two pieces that move independently of each other. A scoring Invention is worth **15 Points**. A meaningful design may be worth your time, but it’s not worth points, and won’t be judged. Your Invention must be dropped off by your robot – manual unloading of your Invention is not permitted.

- **LANDING**

Mission: If you are COMPLETELY ON the Landing, waiting to visit with your friend at the end of the round, your team will get an extra **20 Points**. The referee or timekeeper will warn you that your team is nearing the end of the rounds (“30 seconds to go...15 seconds to go”).

| <b>MISSION</b>                | <b>POINTS</b> |
|-------------------------------|---------------|
| Daniel Tiger’s Clock          | 10            |
| The Platypus Mound            | 20            |
| Lady Elaine’s Museum-Go-Round | 10            |
| X the Owl’s Tree              | 20            |
| Some Place Else               | 10            |
| The Queen’s Garden            | 10            |
| The Castle                    | 10            |
| Feed the Fish                 | 20            |
| Closet                        | 20            |
| Speedy Delivery               | 35            |
| <b>Partial Credit</b>         | <b>10</b>     |
| Corney’s Factory              | 15            |
| Landing                       | 20            |
| <b>TOTAL</b>                  | <b>200</b>    |