

CHALLENGES

To introduce you to your BrainBoxes and their capabilities, we challenge you to complete these tasks using the kit and resources provided. Feel free to ask for help, and make sure to show a redshirt when you've completed a task to receive sweets! You can use the Docs to help you with these activities.

InferNOOO

Connect your battery ready for safe charging, and ask for a figure of eight cable from a redshirt when you're ready to show your work.



BRAAAAINS



Connect the switches and battery to your BrainBox and turn it on by pressing the power button. Boot the laptop and have a look for the docs. Once you've found them, tell a redshirt how long it takes to learn Python according to the docs for a sweet surprise.

Trick and Treat

Find the following information in the rules and share it with a redshirt to get a treat.

1) which colour corresponds to each farmer?

Bonus question (for an additional treat): Why is Zhora's colour the colour that it is?

2) The greatest and the least number of league points for first place.

3) What food product is used in robot testing?



Pitch the Witch



Ask one of the redshirts for a potentiometer. Read the state of the potentiometer using the BrainBox and use the servo to make the witch cut-out provided fly back and forth based on the potentiometer's position. Show a red shirt to receive a treat for your trick.

Pumpkin Eye

Use the LEDs and proximity sensor provided, along with the GPIOs on the BrainBox, to make eyes for the pumpkin provided that light up when something comes close.



Out on a Limb



A zombie has left a loose body part in the cycle rack! Report back to a redshirt with the ID and colour of the AprilTag on the limb that your robot shows you.

Hypno Spin

Draw a spiral or use one provided and make it spin using your motors. Hypnotise a redshirt so that they give you sweets.



Graveyard Dash



Assemble the minibot using the instructions in the Doc. Using the arena markers stuck onto your really useful box as gravestones, try to navigate through the graveyard.