UNSW MAKERBUS WORKSHOPS

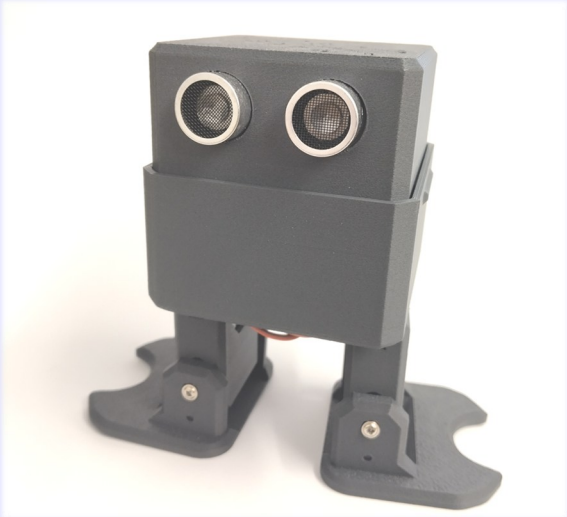
Ottobots

DIFFICULTY

★★★★☆

WORKSHOP AGES
Years 7-12

DURATION
Approx. 120 minutes



Learning Outcomes

- 3D printing
- Hand construction
- Robotics
- Circuits and controllers
- Coding

Parts List

Premade

- 3D printed body
- Arduino controller
- Electronic components
- Servo motors

Optional during workshop

- Coding Arduino

Tools

- Screwdrivers



Pre-workshop

Students will be introduced to the technologies used in making their Ottobot kits i.e. 3D printing and electronics. Coding will also be touched on to give an understanding of how the completed kit functions. Teachers may like to introduce similar topics to students prior to the day of the workshop.

Practical Workshop

A step-by-step procedure will be walked through by Makerbus ambassadors with all construction being either press fit, screwed or placed together. A full diagram will be given to each student to follow for assembly, but some students may require a little extra attention in placing components correctly.

Electronic components should fit together without excess force to be put in place. Some screw placement does exist in tight spaces as part of the robot assembly and may be challenging for some students.

A portion of the workshop will be learning how to upload code to the Arduino boards to program each Ottobot. Once their construction portion is complete, students will be aided by one of the attending Makerbus ambassadors in running the Arduino software to make an interactive bot. Students will also be able to further explore additional commands that they can customise their own project with.

Safety

Tools and parts used in this workshop pose low risk for safety concerns with the attending students when given appropriate supervision. No PPE is required beyond basic school uniform.

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