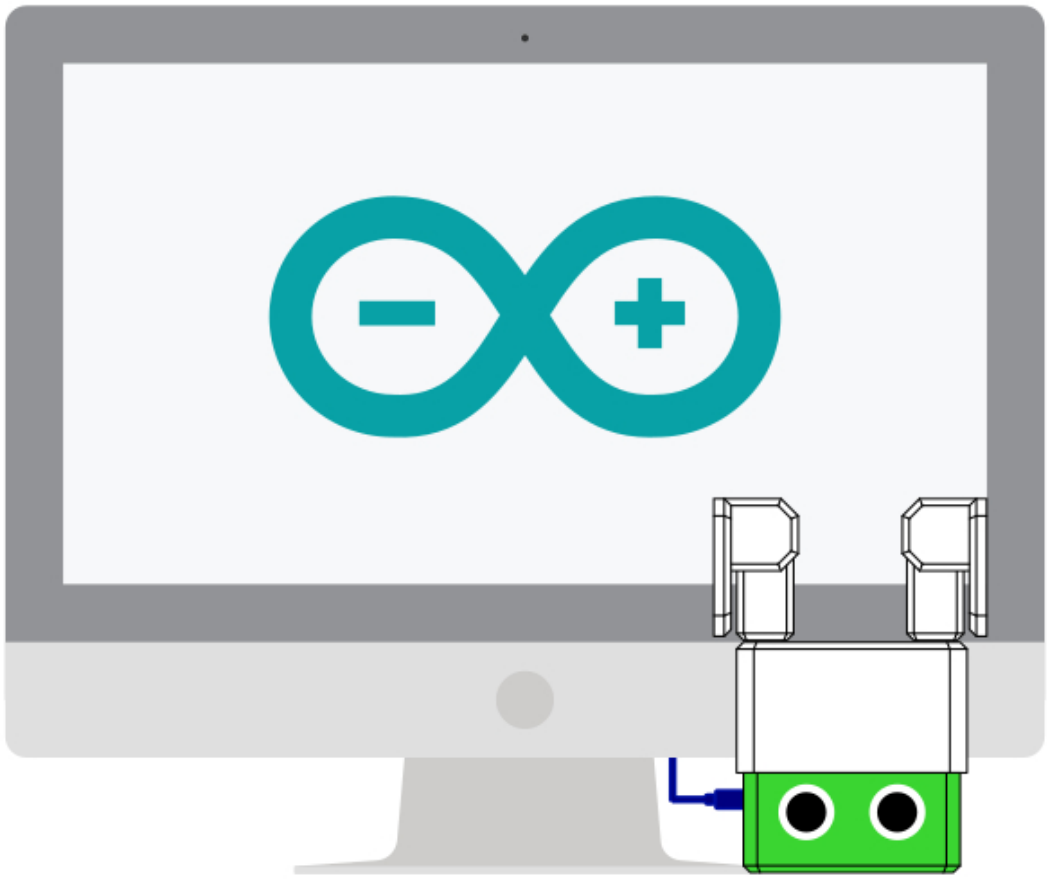
coding guide



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- go to https://www.arduino.cc/

- download & install the Arduino IDE

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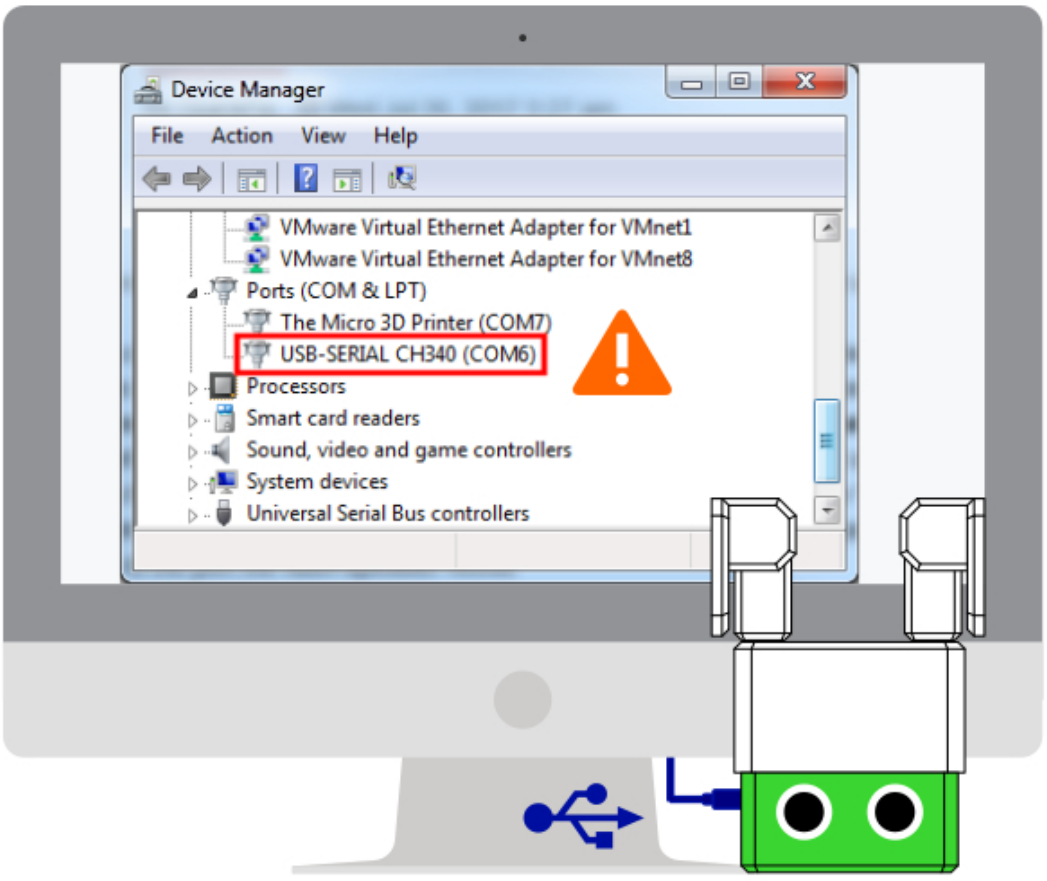
- go to https://sparks.gogo.co.nz/ch340.html



- download & install the driver CH340
- then connect Otto and check

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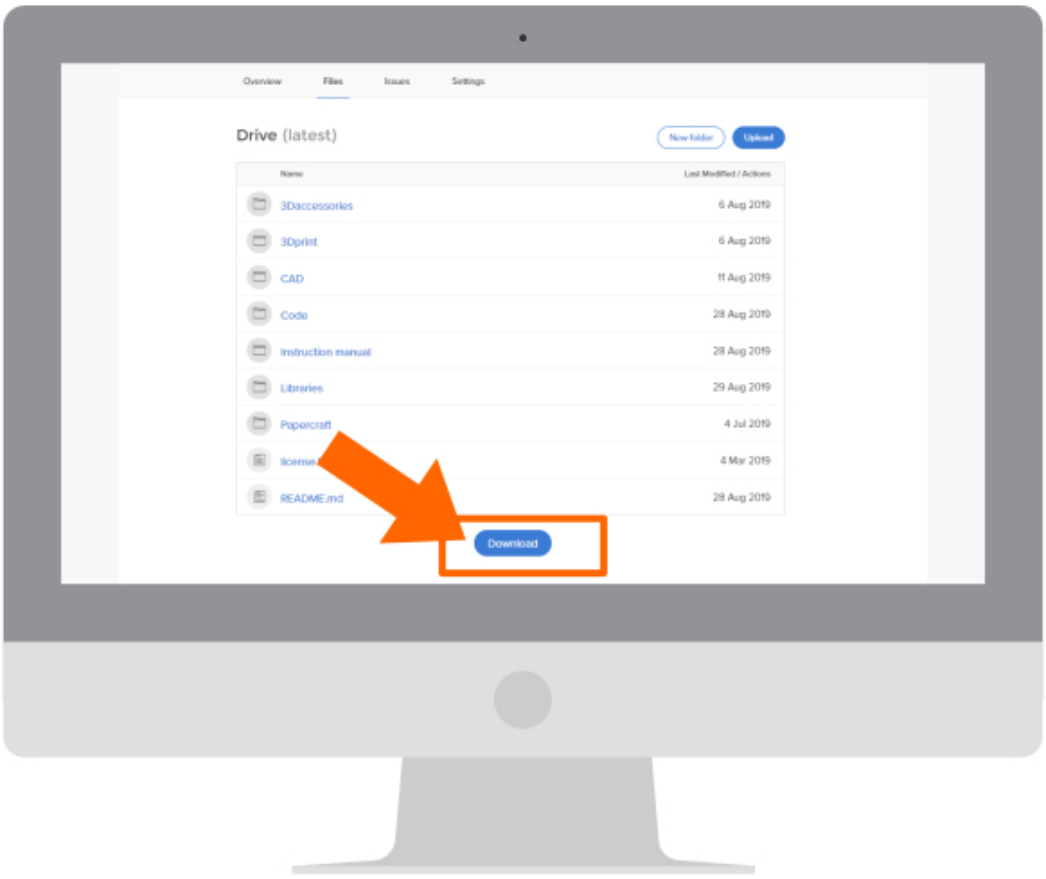
- go to https://wikifactory.com/+OttoDIY/otto-diy/files



- download all Otto DIY files

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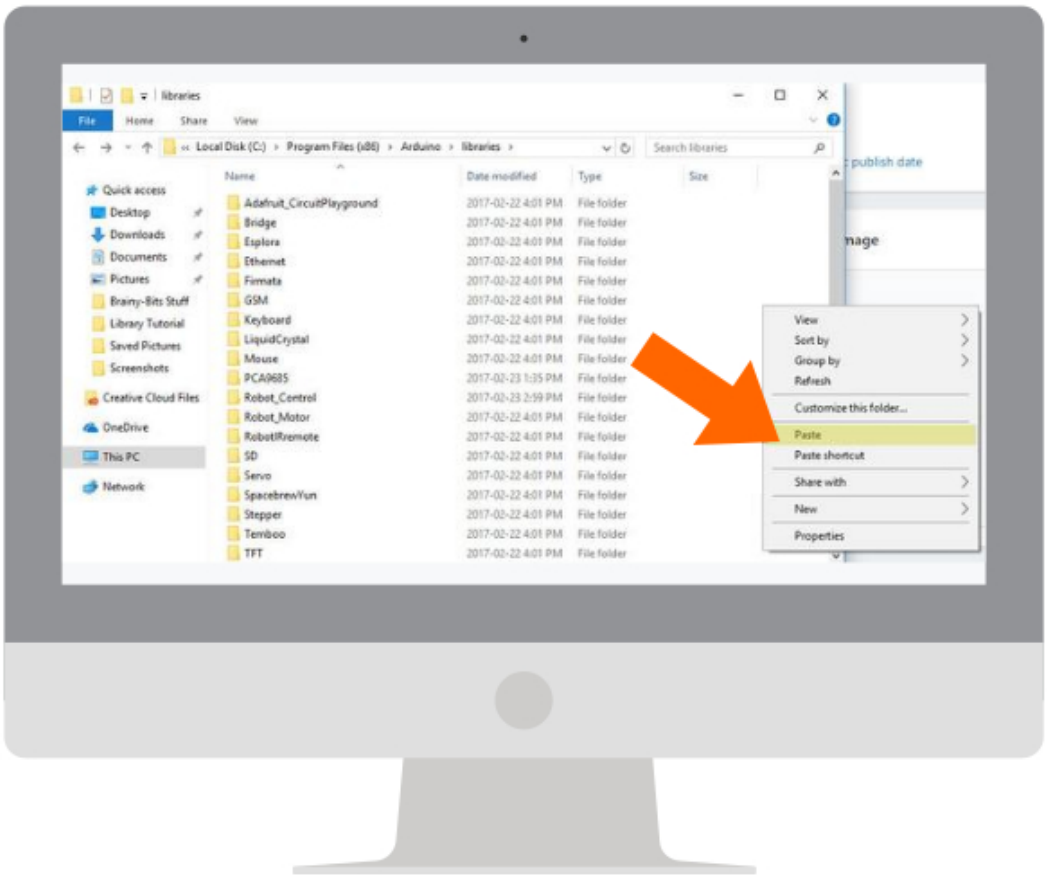
- **move all “libraries” folders to:**

C:\Documents\Arduino\libraries\
(your Arduino library folder location)



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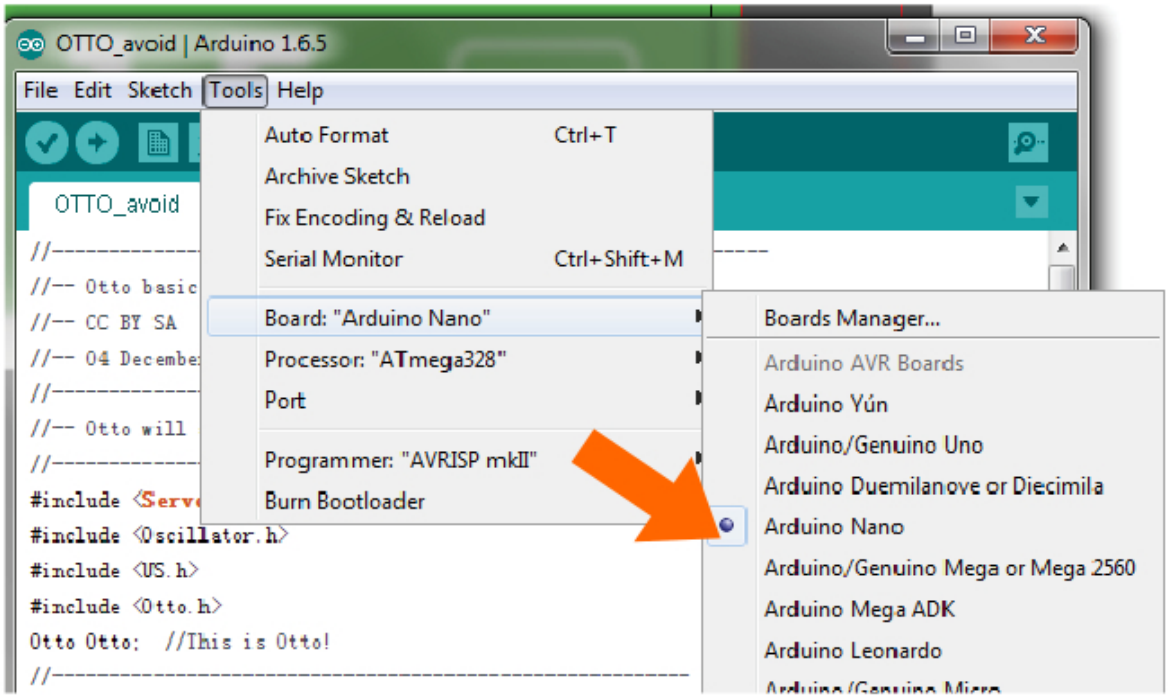
- open code Otto_avoid.ino

select in Arduino Tools/

- Board: “Arduino Nano”
- Processor: “ATmega328 (Old bootloader)”
- Port COM# (where your Otto is connected)



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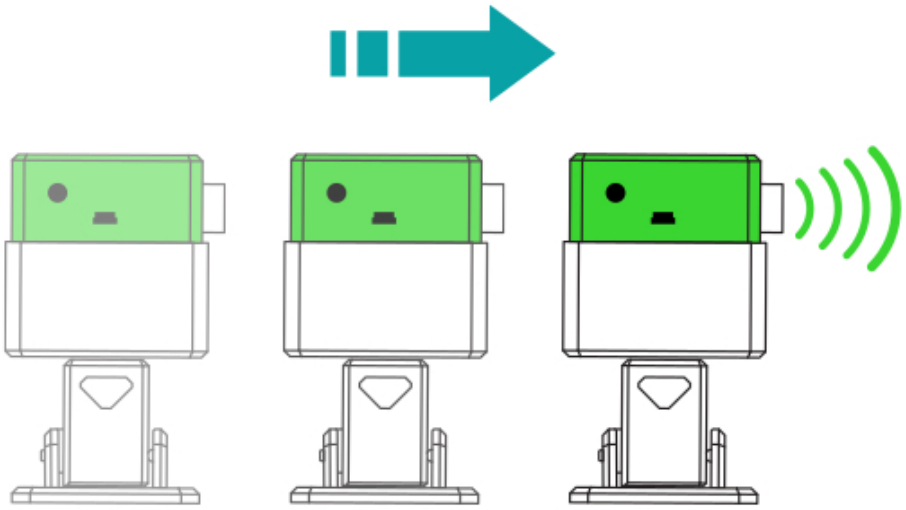
- verify the code
- upload the code

Otto will walk endlessly until detect obstacles to avoid



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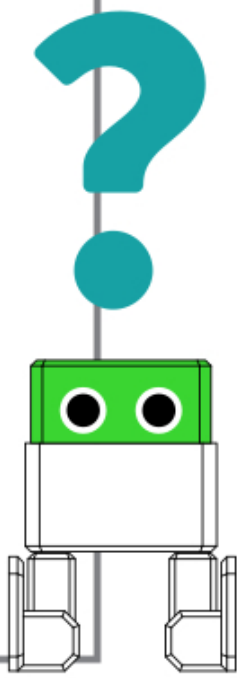
the principal loop code looks like this:

Otto_avoid.ino

```
void loop() {
if(obstacleDetected){
Otto.sing(S_surprise);
Otto.playGesture(OttoFretful);
Otto.sing(S_fart3);
Otto.walk(2,1300,-1);
Otto.turn(2,1000,-1);
delay(50);
obstacleDetector();
}
else{
Otto.walk(1,1000,1);
obstacleDetector();
}
}
```



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Otto.sing(S_surprise);

sing function (“sound to make”)

(S_surprise); (S_OhOoh); (S_OhOoh2);

(S_cuddly); (S_sleeping);

(S_happy); (S_superHappy); (S_happy_short);

(S_sad); (S_confused); (S_buttonPushed);

(S_fart1); (S_fart2); (S_fart3);

(S_mode1); (S_mode2); (S_mode3);

(S_connection); (S_disconnection);

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Otto.walk(2,1300,-1);

move function (“#steps, Time[ms], direction”)

```
Otto.walk(1,1000,1);     Otto.walk(1,1000,-1);
Otto.turn(3,1000,1);     Otto.turn(3,1000,-1);
Otto.bend(2,1000,1);     Otto.bend(2,500,-1);
Otto.shakeLeg(1,1000,1);
Otto.moonwalker(1,1000,moveSize,1);
Otto.moonwalker(1,1000,30,1);
Otto.crusaito(1,1000,moveSize,1);
Otto.flapping(1,1000,moveSize,1);
Otto.swing(1,1000,moveSize);
Otto.updown(1,1000,moveSize);
Otto.tiptoeSwing(1,1000,moveSize);
Otto.jitter(1,1000,moveSize);
Otto.ascendingTurn(1,1000,moveSize);
Otto.jump(1,1000);
```

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Otto.playGesture(OttoFretful);

play Gesture function (“emotion to express”)

(OttoSuperHappy); (OttoSad);

(OttoSleeping); (OttoFart);

(OttoConfused); (OttoFretful);

(OttoLove); (OttoAngry);

(OttoMagic); (OttoWave);

(OttoVictory); (OttoFail);

- try upload all other codes!

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