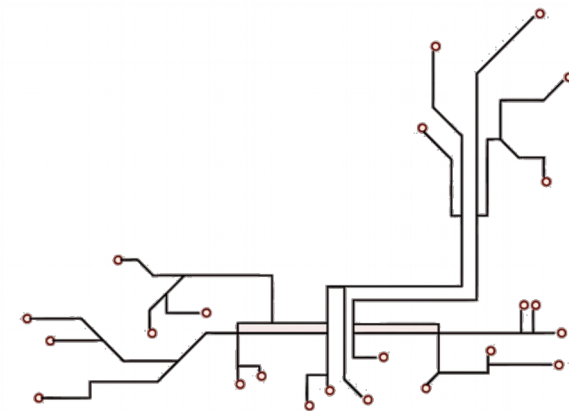
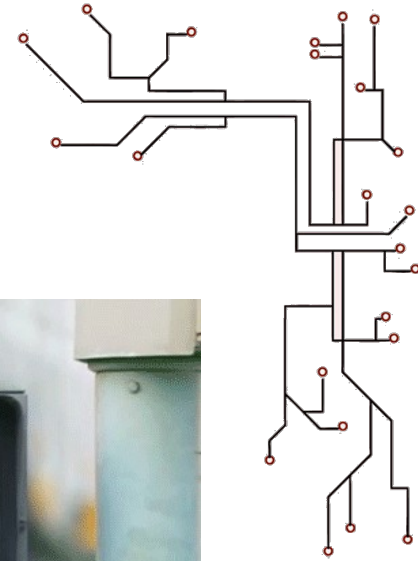


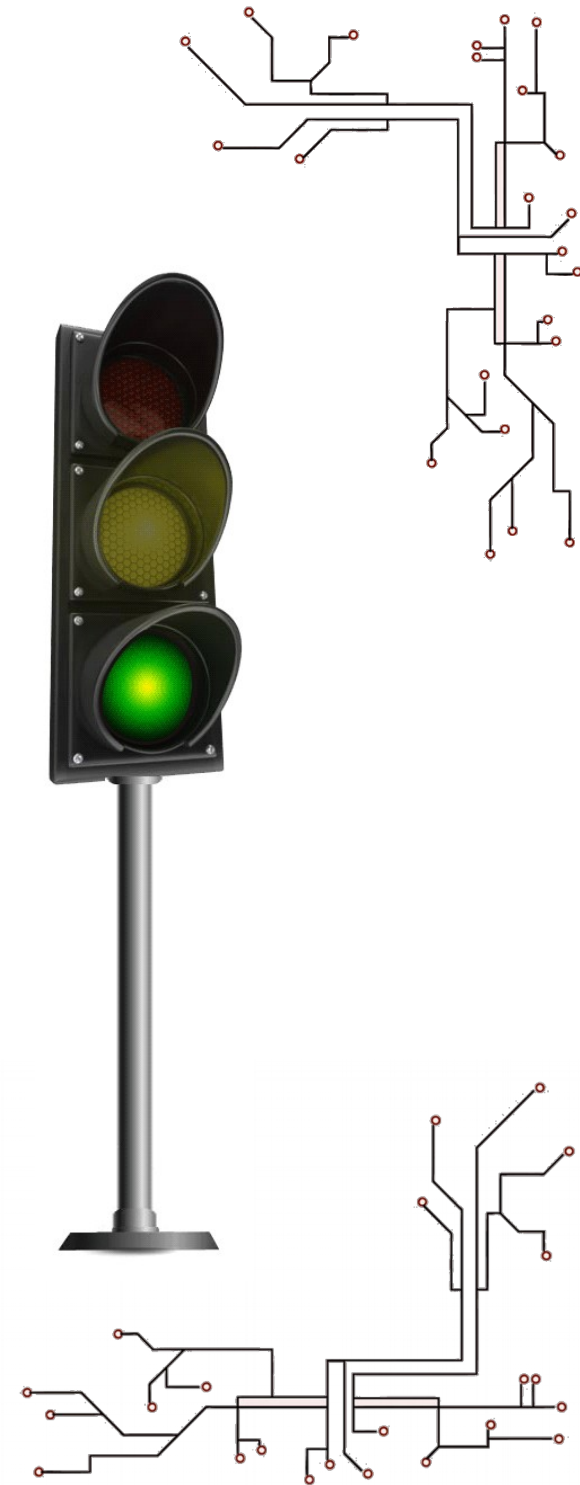
# Traffic Crossing

- Traffic Light Design
- Traffic Crossing
- Adding Sound for the Blind



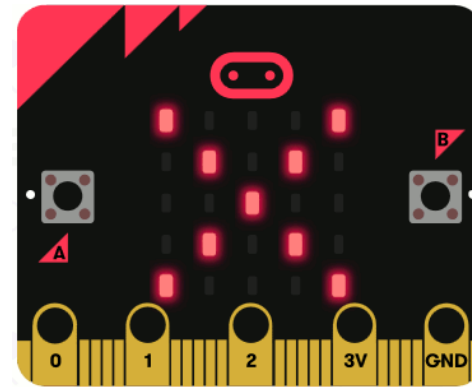
# Single Traffic Light

- **Red** – STOP (10 sec)
- **Green** – GO (10 sec)
- **Yellow** – SLOW DOWN (3 sec)
- Back to Red...



# Crossing Traffic Light

- **Red** – STOP (10 sec)
  - Crossing: Walking Man
- **Green** – GO (10 sec)
  - Crossing: Standing Man
- **Yellow** – SLOW DOWN (3 sec)
  - Crossing: Still Standing Man
- Back to Red...

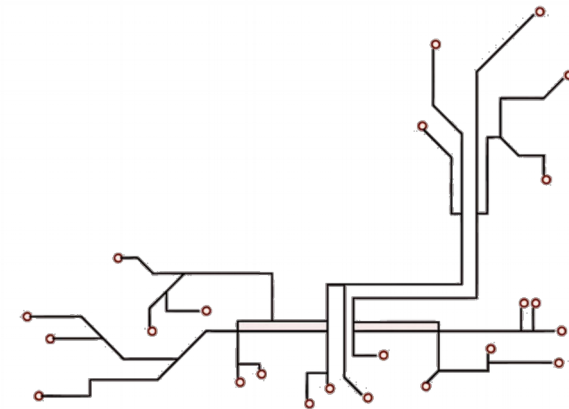
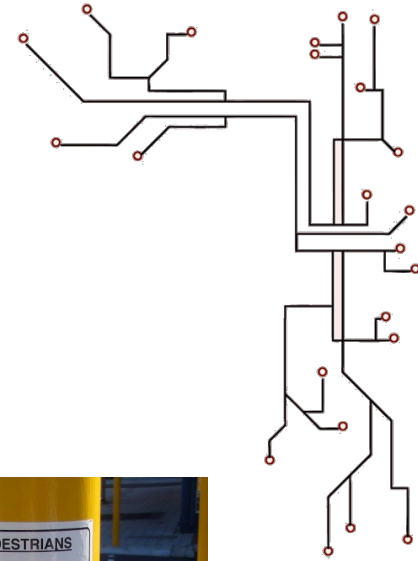


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# Crossing Traffic Light

- What about a button, to indicate someone wants to cross...?
- Can we use A or B?
- What will the pattern look like?

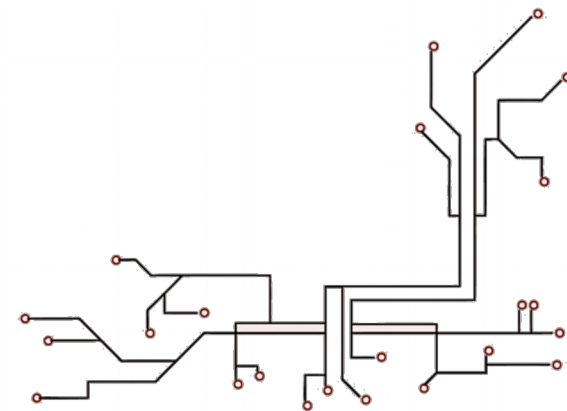
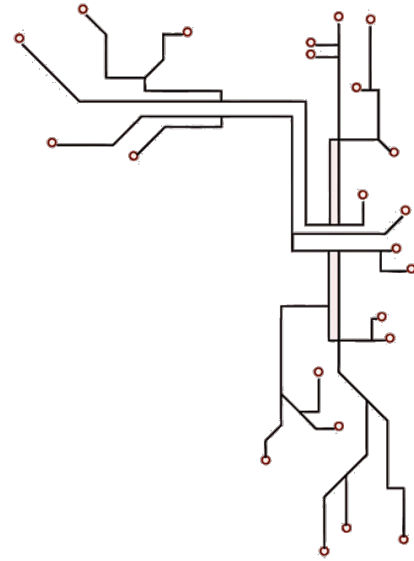


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# Let's Make

- Sounds for blind pedestrians indicating:
  - Crossing
  - Stopping
  
- One is fast, the other slow...



# micro:bit Music

- Tempo & Beats

You can change the tempo



```
on start
  set tempo to (bpm) 120
  play tone Middle C for 1 beat
  play tone Middle D for 1 beat
  play tone Middle E for 1 beat
  play tone Middle F for 1 beat
  play tone Middle G for 1 beat
```

The code block is a Scratch script starting with an 'on start' block. It contains a 'set tempo to (bpm)' block with the value '120' entered in a purple input field. Below this are five 'play tone' blocks, each with a note name (Middle C, Middle D, Middle E, Middle F, Middle G) and a duration of '1 beat'.

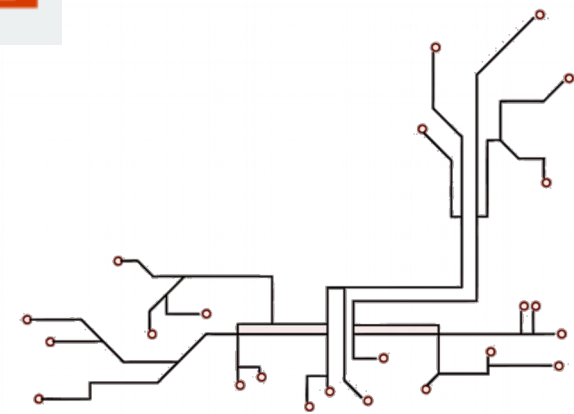
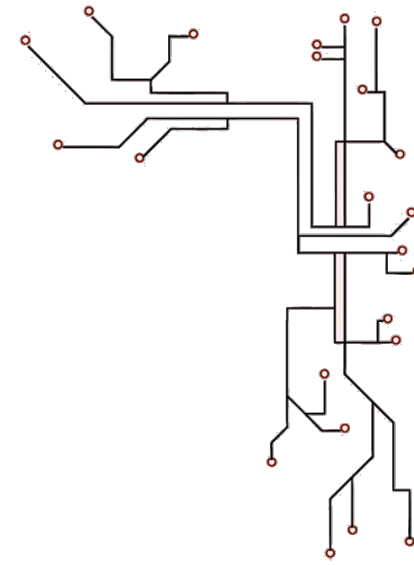
... or each note's duration

Higher Tempo = Shorter Beat

How long is each beat if tempo is 60 bpm? 120 bpm?

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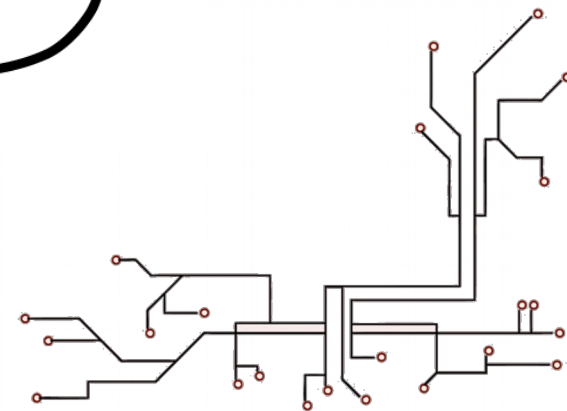
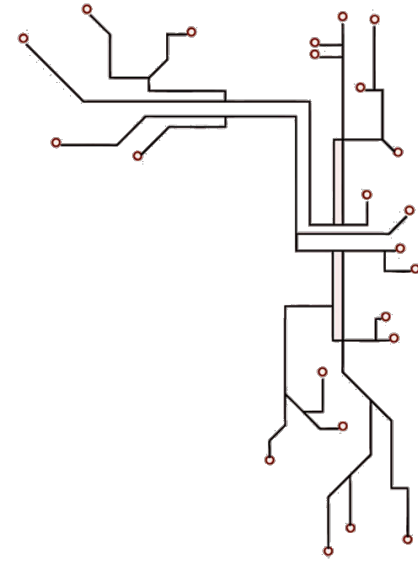
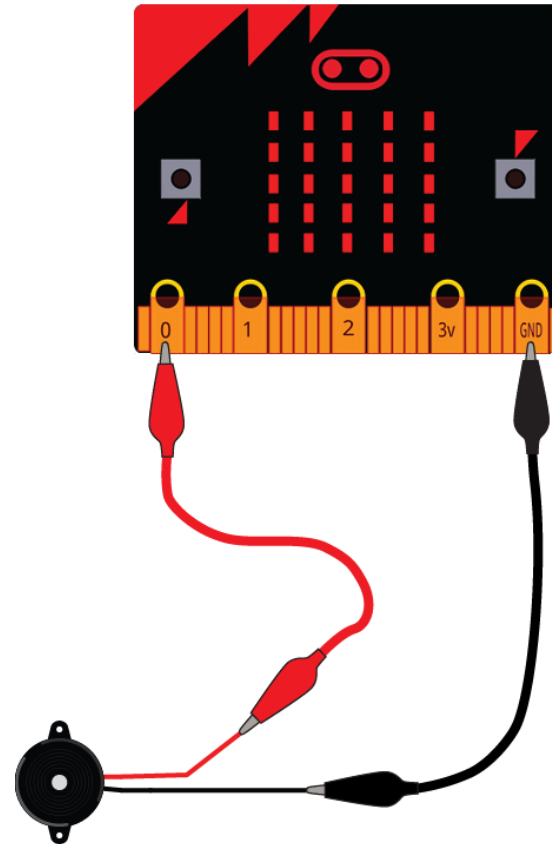
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# micro:bit Connected

Connect the  
**Piezoelectric Speaker**  
to hear from the  
micro:bit itself

- Feel free to bring headphones from home next week.  
You can connect those, too.



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