Serial monitor

Lesson 3

A very brief intro to outputting data

Setup Serial Monitor

```
void setup() {
    Serial.begin(9600);
    // Other code below
}
```

Printing to the Monitor

Allows you to see output of your program

- Serial.print() Outputs on a single line
- Serial.println() Outputs on a single line, line feeds

```
void setup() {
    Serial.begin(9600);
    Serial.print("Yo");
    Serial.print("Yo");
}
```


```
YoYo
```

```
void setup() {
    Serial.begin(9600);
    Serial.println("Yo");
    Serial.println("Yo");
}
```


```
Yo
Yo
```

Printing Variables

Text and variables cannot be mixed together in the output.

- You must use combinations of print() and println()

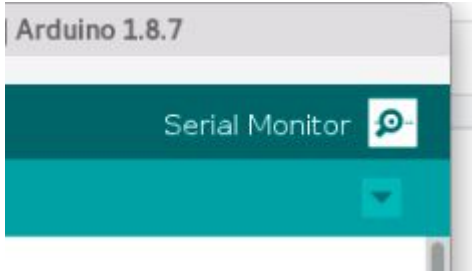
```
void setup() {
   char leftMotorPin = 9;
   Serial.begin(9600);
   Serial.print("The left motor pin is pin ");
   Serial.print(leftMotorPin);
   Serial.println("!");

   Serial.println("Program done.");
}
```

Output

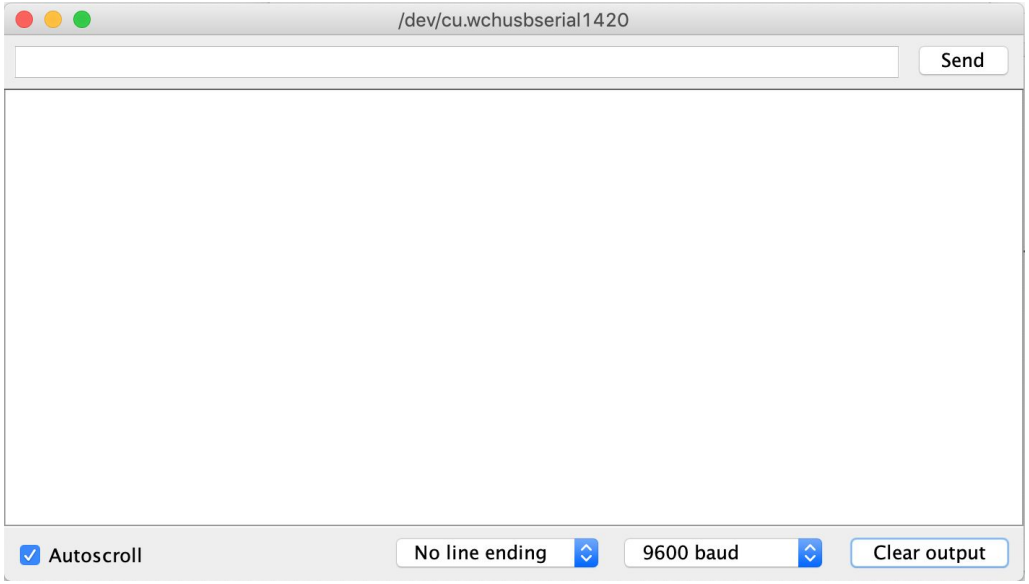
```
The left motor pin is pin 9!
Program done.
```

Viewing the Monitor



Once your program is running

- Click the icon in the upper right
- Tools → Serial Monitor
- Ctrl+Shift+M



Writing to Arduino

The serial monitor allows two way communication.

Inputs (to Arduino)

Outputs (from Arduino)

Parting Thoughts

- Remember to setup the monitor with `Serial.begin(9600);`
- Output data at any time after with
  - `Serial.print();`
  - `Serial.println();`
- Only some boards reset when monitor is opened

Questions?