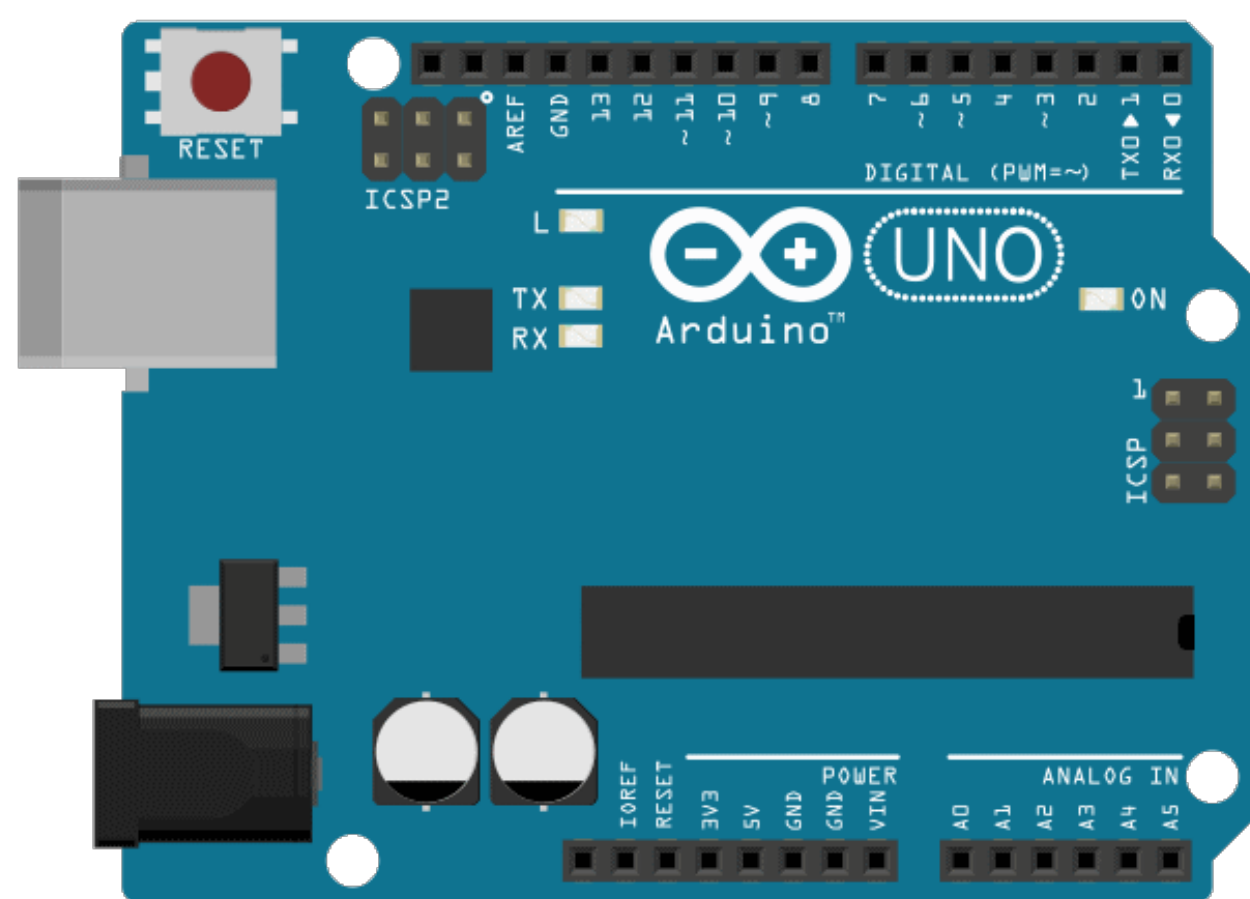


# ARDUINOED



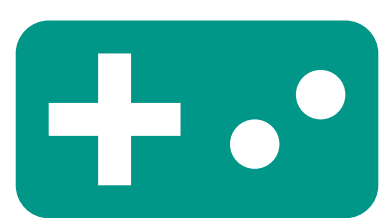
Arduinoed is an honours level project performed by:

- Mitch Myburgh
- Tumelo Makgaka

The project sought to investigate the link between intergrating hardware into university level courses and student motivation.

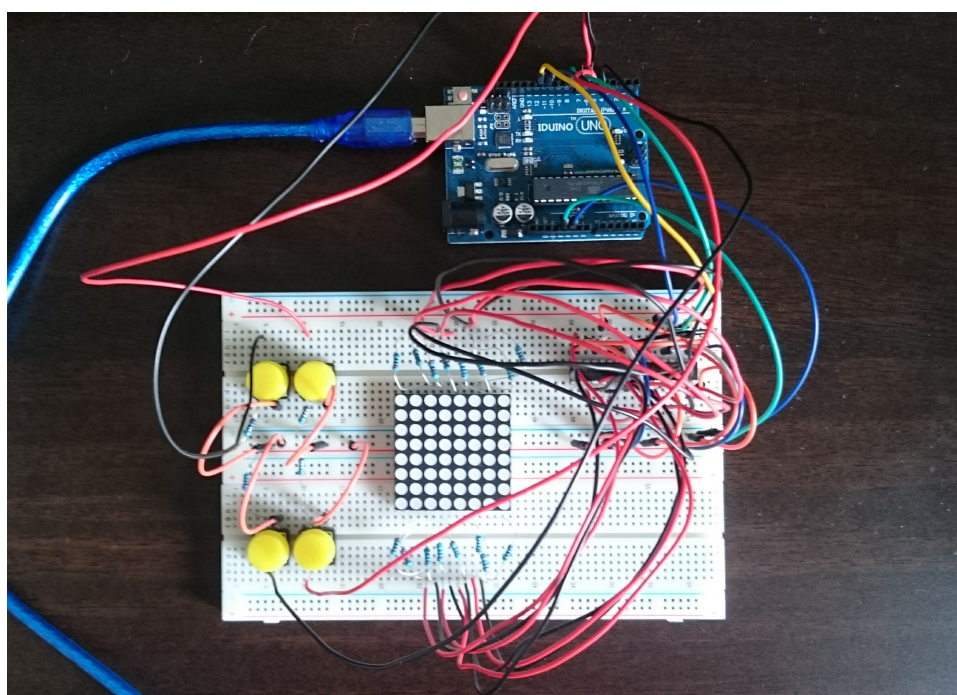
Two Frameworks were produced:

- Playduino, a game engine and console
- MOTI, an alarm system.



## PLAYDUINO

Mitch Myburgh



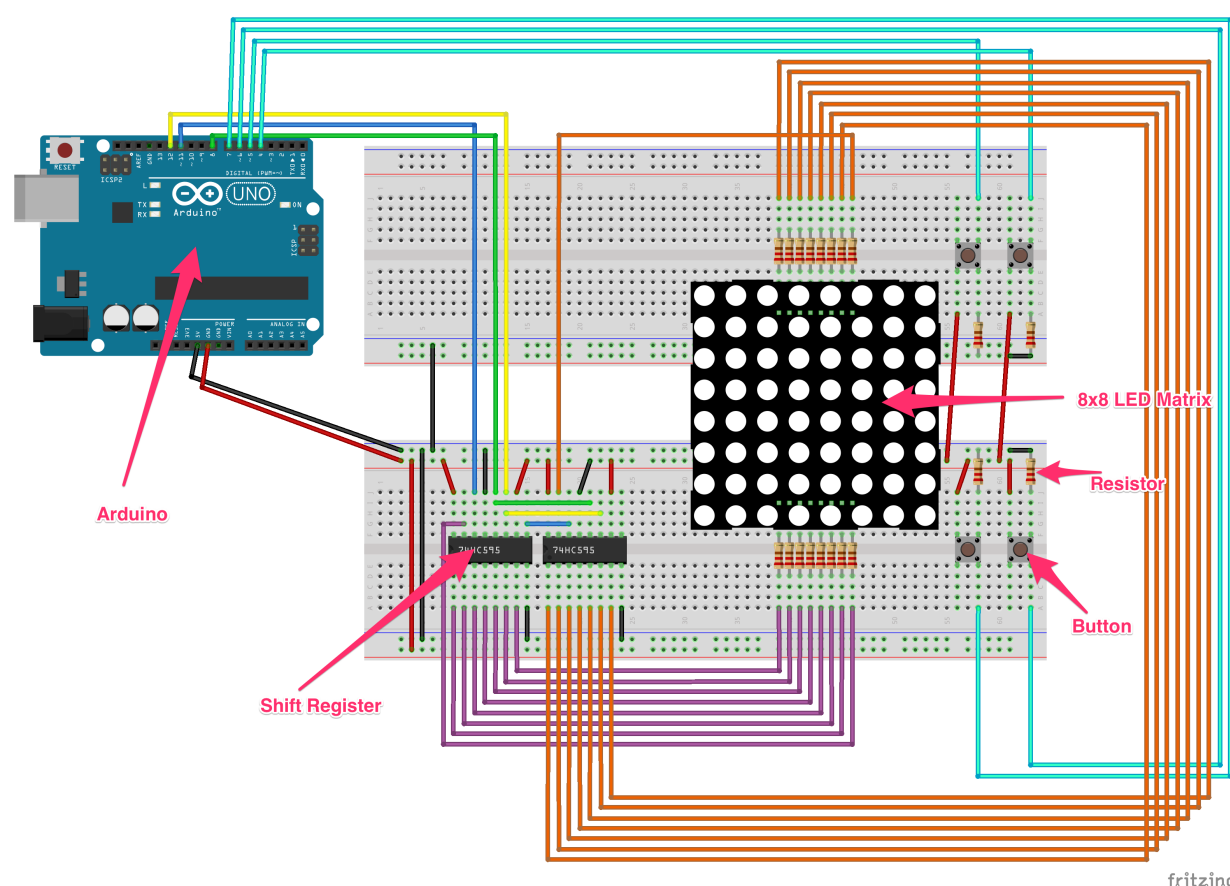
The Playduino Console

Playduino is an Arduino game console and game engine allowing students to build games in an attempt to increase their motivation and interest in Computer Science and programming assignments.

Playduino includes:

- a hardware game console
- a C++ game engine
- documentation
- two sample games
- two sample assignments.

The results of the testing showed a statistically significant increase in motivation over traditional assignments.

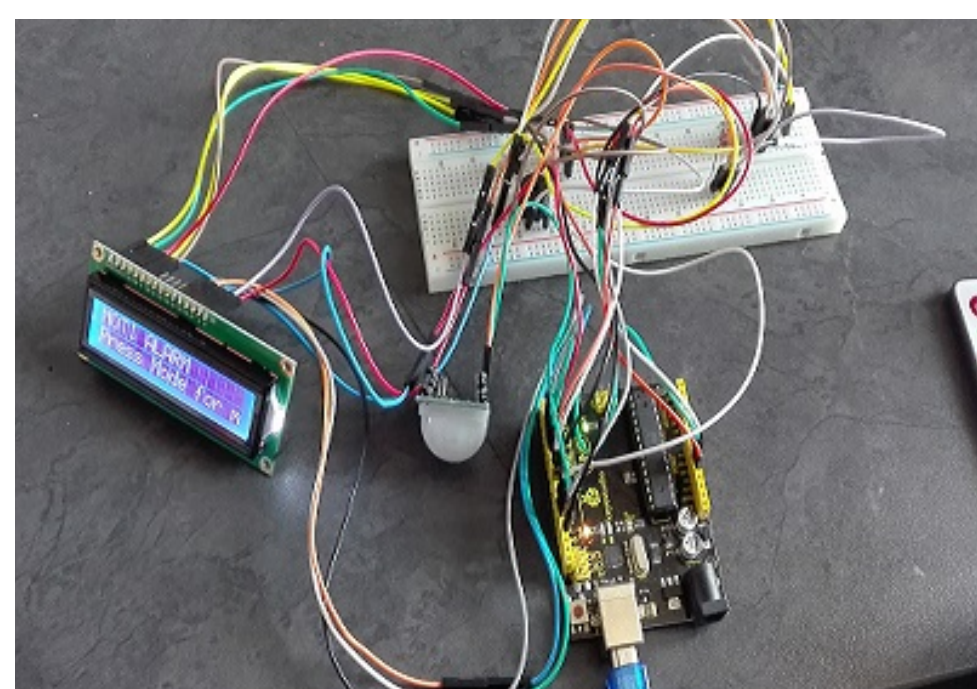


The Playduino Console Schematics



## MOTI

Tumelo Makgaka



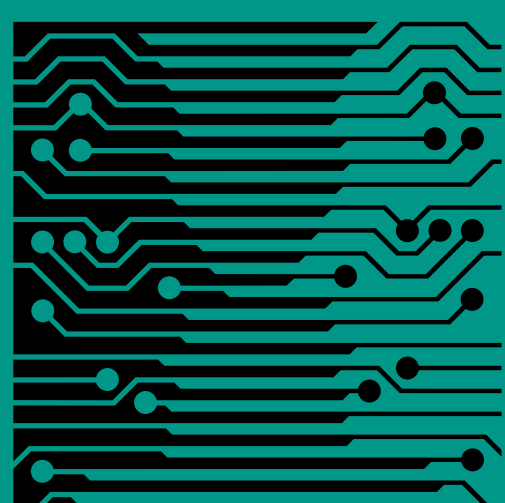
The MOTI Alarm

MOTI is an Arduino based network alarm system. It is meant to assess whether or not students prefer tangible forms of programming assignments over traditional simulation assignments.

MOTI includes:

- a motion sensor
- an LCD screen
- buzzer
- documentation
- two sample assignments.

The results of the testing showed a statistically significant increase in motivation over traditional simulation assignments.



## Researchers

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