

Deliverable 2: Lex analyzer

Problem description:

In order for a human operator to use the robot, a language that is more atuned with regular human speech is necessary.

In order to achieve this, a series of tokens that are used by a lexer in order to understand some common words is required.

Accepted Keywords

Keywords accepted and translated to tokens:

- **⟨NOUN⟩** → "robot" | "gerald"
- **⟨KIND_WORD⟩** → "please" | "kindly"
- **⟨BLOCKS⟩** → "block" | "blocks"
- **⟨DEGREES⟩** → "degrees"
- **⟨CONJUNCTION⟩** → "and"
- **⟨ADVERB⟩** → "then" | "subsequently" | "after" | "afterwards" | "next"
- **⟨POSITION⟩** → "move" | "advance"
- **⟨ORIENTATION⟩** → "turn" | "rotate"
- **⟨ANGLE⟩** → "90" | "180" | "270" | "360"
- **⟨DIRECTION⟩** → "ahead" | "left" | "right" | "up" | "down"

Run example:

```
robot please move 3 blocks ahead and then turn 90 degrees, then move forward 5  
blocks and turn 90 degrees
```

```
ds\Lex_Yacc> ./program text.txt  
PASS
```

```
robot moves 2 blocks quickly
```

```
ds\Lex_Yacc> ./program text.txt  
FAIL
```