

Loops

Can you repeat what you said again?

Overview

- Loops
- `while` loop
- `for` loop
- `break`
- `continue`

Loops

- Why?
 - Data processing
 - Image processing
 - Gameplay

Count Down

T-minus 5 seconds

T-minus 4 seconds

T-minus 3 seconds

T-minus 2 seconds

T-minus 1 seconds

Take off!

while loop

```
// 1. Setup
while( /* 2. Condition */ ) {
    // 3. Do work
    // 4. Condition step
}
```

while loop

```
int seconds = 5;
while(seconds > 0) {
    printf("T-minus %d seconds\n", seconds);
    seconds--;
}
printf("Take off!");
```


for loop

```
for( /* 1. Setup */ ;  
     /* 2. Condition */ ;  
     /* 3. Condition step */ ) {  
  
    // 4. Do Work  
  
}
```

for loop

```
int seconds;  
for(seconds = 5; seconds > 0; seconds--) {  
    printf("T-minus %d seconds\n", seconds);  
}  
printf("Take off!");
```


break

```
for(seconds = 5; seconds > 0; seconds--) {  
    if(engineFailure) {  
        break;  
    }  
    printf("T-minus %d seconds\n", seconds);  
}
```

continue

```
while( !gameOver) {  
    if(skipCardPlayed) {  
        nextPerson();  
        continue;  
    }  
    playCard();  
    nextPerson();  
}
```


Review

- `while` loop
- `for` loop
- `break`
- `continue`

