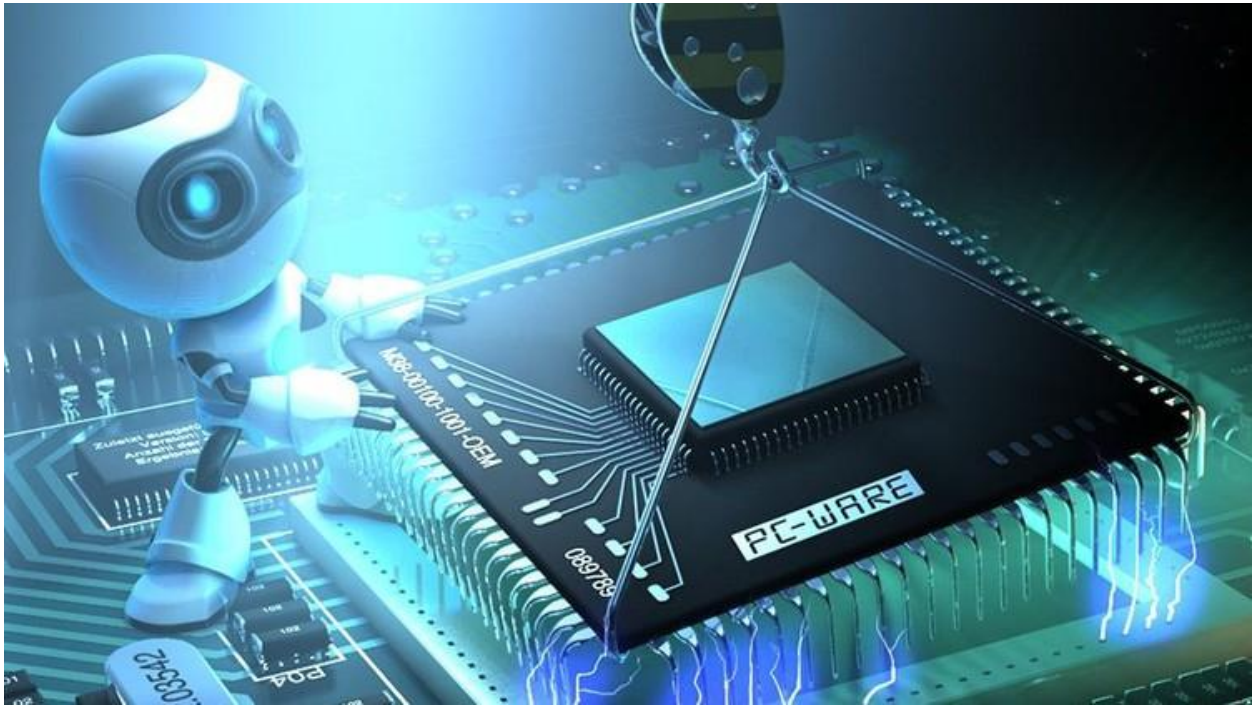
Activation Block



Activation Block

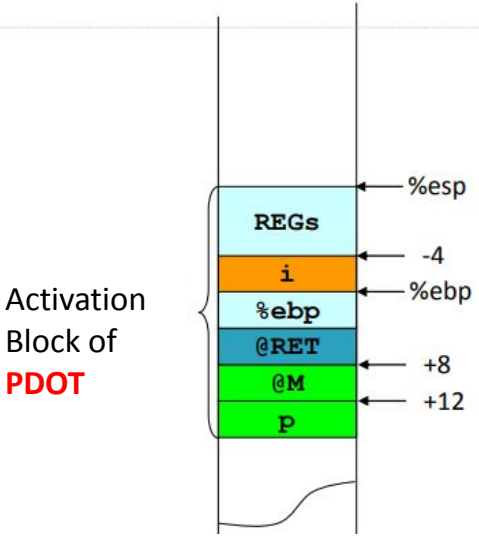
STACK

```
{PDOT caller code}
stack PDOT parameters

        call PDOT
        ...

PDOT:   pushl %ebp
        movl %esp, %ebp
        subl $4, %esp
        save registers
```

```
void PDOT(int M[10][10], int *p) {
  int i;
  *p = 0;
  for (i=0; i<10; i++)
    *p += DOT(&M[0][0],&M[i][0],10);
}
```



Activation Block of **PDOT**

Conventions in Linux-32 bits

- **Parameters** are passed **on the stack from right to left**.
  - Vectors and matrices are always passed by reference
  - Structs are passed by value, no matter the size
  - Character type parameters (1 byte) occupy 4 bytes
  - Parameters of type short (2 bytes) occupy 4 bytes

- **Local variables** are stack aligned with the same convention as in a struct
  - Char in any direction
  - Short in multiples of 2 directions
  - Integer in multiples of 4 addresses
  - The size of the set of local variables must be a multiple of 4 so that the stack is well aligned