Are you scared of Robots? Well I’m sorry to say, you should be! Unless that is, you know how to program them to do your bidding.

Start a new program in the Editor [F2] and enter the code below. When you run it you will be able to control two limbs of the robot arm.

```plaintext
CLS
FONTSIZE (4)
INK = RED
PRINT "We are the ROBOTS!"
INK = WHITE
PRINTAT (0, 2); "Press keys to control"
INK = YELLOW
PRINTAT (0, 4); "Left or Right for Body"
PRINTAT (0, 5); "Up or Down for Shoulder"
LOOP
  IF SCANKEYBOARD (SCANLEFT) THEN
    ARMBODY (1)
  ELSE
    IF SCANKEYBOARD (SCANRIGHT) THEN
      ARMBODY (-1)
    ELSE
      ARMBODY (0)
    ENDIF
  ENDIF
ENDIF

IF SCANKEYBOARD (SCANUP) THEN
  ARMSHOULDER (1)
ELSE
  IF SCANKEYBOARD (SCANDOWN) THEN
    ARMSHOULDER (-1)
  ELSE
    ARMSHOULDER (0)
  ENDIF
ENDIF
```

If you get an error stating “unable to find Robot Arm” or similar then escaping the program, so that you get the “ready” prompt. Then, switch the arm off at the switch on the arm itself. Turn it back on, and run your program again. It may take a few tries. If this does not work, get in touch at contact@fuze.co.uk

**Hacker Challenge:**
How about adding controls for the rest of the robot’s limbs. Notice how each one above has its own section of code beginning with

IF SCANKEYBOARD (SCANkey) THEN ...

The SCANKEYBOARD function can be used to detect any key on the keyboard so if you wanted to use PAGEUP or PAGEDOWN for example you could change SCANDOWN to SCANPAGEUP or SCANPAGEDOWN.

**See overleaf for the full list of SCANKEY codes**
The following Robot Arm commands can be used to control different limbs. Note that a (1) sets the limb moving in one direction whereas a (2) will set it moving in the opposite one. A (0) is used to stop it moving.

- **ARMBODY** (x)  
  - x can be 1, -1 or 0

- **ARMSHOULDER** (x)  
  - x can be 1, -1 or 0

- **ARMELBOW** (x)  
  - x can be 1, -1 or 0

- **ARMWrist** (x)  
  - x can be 1, -1 or 0

- **ARMGRIPPER** (x)  
  - x can be 1, -1 or 0

- **ARMLIGHT** (x)  
  - x can be 1 or 0