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Solving a 2 X 2 Cube

Understanding the cube sides & faces

R= Right side of cube **L**= Left side of cube

F=Front side of cube **B**= Back side of cube

U= 1st line of cube **D**= 2nd line of cube

1 - Arrange all WHITE squares on the top of cube

1. Arrange 3 WHITE squares on top of the cube and keep right corner vacant
2. Line up the 4th WHITE square in Front 2nd line right side of cube
3. Algorithm $\rightarrow R\downarrow \text{ --- } D\leftarrow \text{ --- } R\uparrow \text{ --- } D\rightarrow$ Repeat these steps till all 4 WHITE squares are on top

2 – Build 1st line with 2 matching colours on each side

1. Keep all WHITE 4 squares on the top
2. Keep matching colour squares in 1st line (if any) away from you
3. Algorithm $\rightarrow R\downarrow \text{ --- } D\leftarrow \text{ --- } R\uparrow \text{ --- } L\downarrow \text{ --- } D\rightarrow \text{ --- } L\uparrow \text{ --- } R\downarrow \text{ --- } D\leftarrow \text{ --- } R\uparrow$ Repeat these steps till 1st line with 2 matching colours on each side is done

3 – Arrange all YELLOW squares at the top of cube

1. Reverse the cube and keep the WHITE colour squares at the bottom
2. Keep the YELLOW square at bottom left (if any singles) on all iterations
3. If 2 YELLOW squares are there in a line, keep the line on right
4. Algorithm $\rightarrow R\uparrow \text{ --- } U\leftarrow \text{ --- } R\downarrow \text{ --- } U\leftarrow \text{ --- } R\uparrow \text{ --- } U\leftarrow \text{ --- } U\leftarrow \text{ --- } R\downarrow$ Repeat these steps till all 4 YELLOW squares are on top

4 – Build 2nd line and complete the cube

1. Keep the YELLOW colour squares on the top
2. Keep matching colour 4 squares in 1st & 2nd line (if any) away from you
3. Algorithm $\rightarrow R\downarrow \text{ --- } F\curvearrowright \text{ --- } R\downarrow \text{ --- } B\curvearrowright \text{ --- } B\curvearrowright \text{ --- } R\uparrow \text{ --- } F\curvearrowright \text{ --- } R\uparrow \text{ --- } B\curvearrowright \text{ --- } B\curvearrowright \text{ --- } R\uparrow \text{ --- } R\uparrow \text{ --- } B\curvearrowright \text{ --- } B\curvearrowright$ Repeat these steps till cube is solved